

Carpenter,Emilee

From: Spence, Steve O. (VADOC)
Sent: Monday, July 13, 2009 9:18 AM
To: Carpenter,Emilee
Subject: facility diagram
Attachments: scan0001.gif

Stephen O. Spence

Environmental Services Manager

Central Service Area

Office: 434-767-5543 ext. 5319

Cell: 434-774-0914

Fax - 434-767-4127

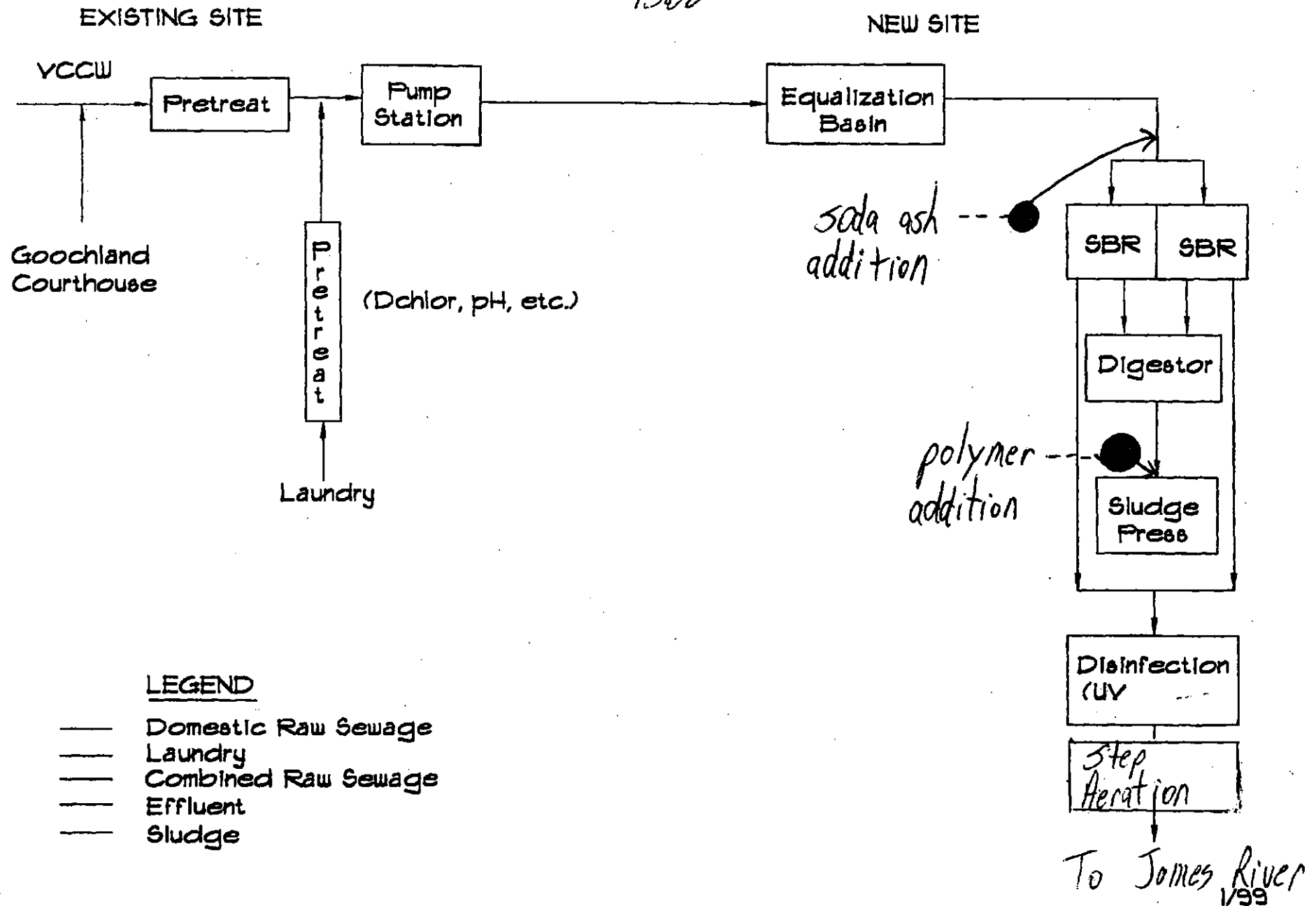
Email: steve.spence@vadoc.virginia.gov

7/14/2009

Plant Layout

DESIGN FLOW ~~400~~ MGD

1300



Carpenter, Emilee

From: Spence, Steve O. (VADOC)
Sent: Thursday, June 11, 2009 9:30 AM
To: Carpenter, Emilee
Subject: VCCW

Attachments: scan0001.gif

Try this.

Stephen O. Spence

Environmental Services Manager

Central Service Area

Office: 434-767-5543 ext. 5319

Cell: 434-774-0914

Fax - 434-767-4127

Email: steve.spence@vadoc.virginia.gov <<mailto:steve.spence@vadoc.virginia.gov>>



scan0001.gif (72
KB)

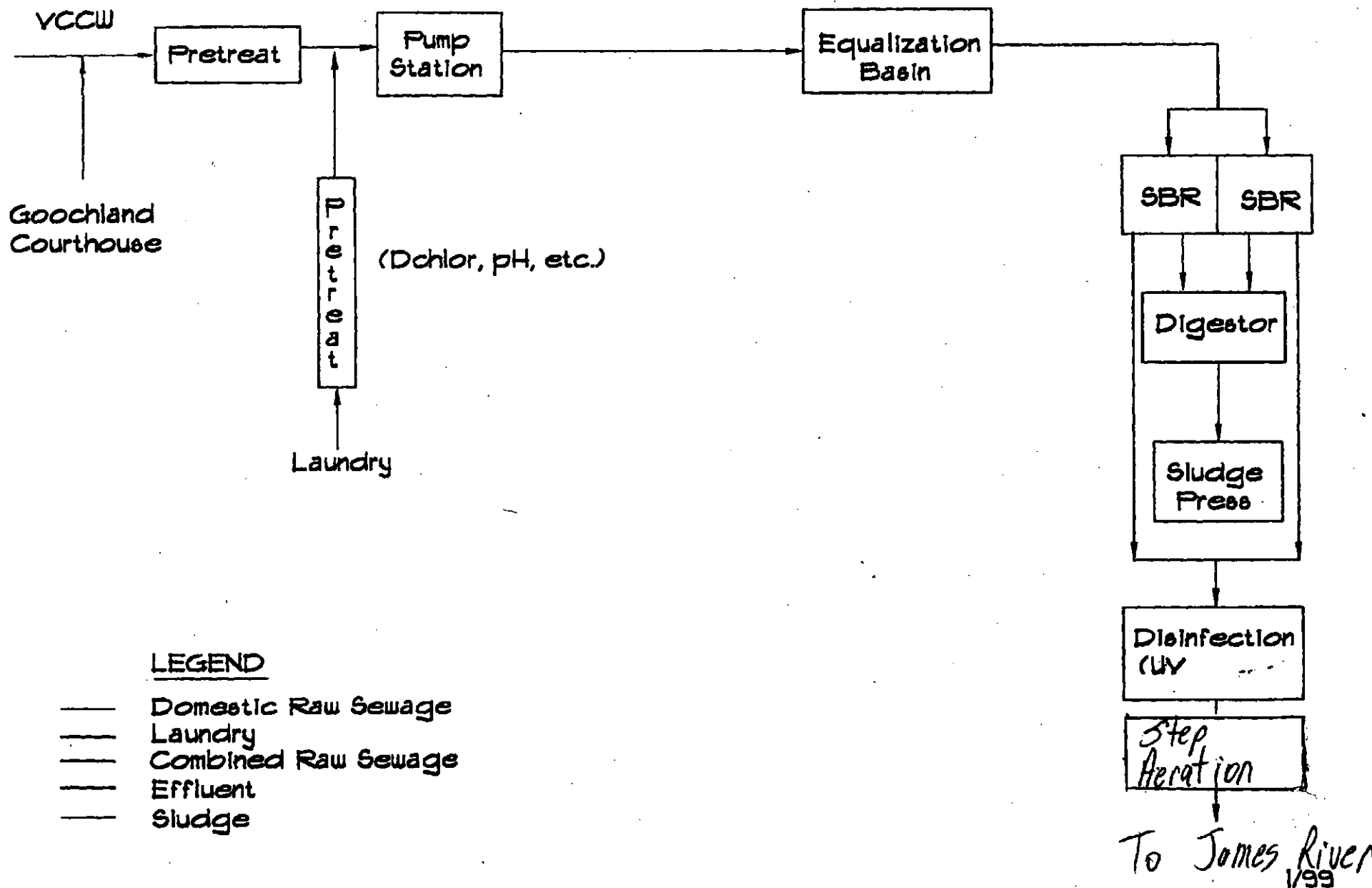
Plant Layout

DESIGN FLOW ~~400~~ MGD

1300

EXISTING SITE

NEW SITE



Carpenter,Emilee

From: Spence, Steve O. (VADOC)
Sent: Monday, June 29, 2009 5:44 PM
To: Carpenter,Emilee
Subject: RE: VA0020702 VCCW- Materials Storage and Handling

Emilee

I said alum, but meant soda ash. Please substitute soda ash for alum. The amounts that we discussed and the storage conditions are the same. Sorry for the mistake.

Steve Spence

From: Carpenter,Emilee [mailto:Emilee.Carpenter@deq.virginia.gov]
Sent: Mon 6/29/2009 4:12 PM
To: Spence, Steve O.
Subject: VA0020702 VCCW- Materials Storage and Handling


Hi Steve,

Per our conversation today, alum is not used in the treatment process of the subject facility. Instead, soda ash is added for pH adjustment. Please verify this statement as it is in conflict with earlier correspondence (highlighted below). In addition, please specify the amount of soda ash stored on site at any given time, and the storage conditions (i.e. indoors or in a sealed container).

I will be in touch tomorrow if there are any further questions.

Thanks,

Emilee C. Carpenter
Water Permit Writer
Department of Environmental Quality
emilee.carpenter@deq.virginia.gov (note: this is a new address)
 804-527-5072

 **Please consider the environment - do you really need to print this email?**

From: Spence, Steve O. (VADOC)
Sent: Tuesday, May 26, 2009 8:46 AM
To: Carpenter,Emilee
Subject: RE: VA0020702 Reissuance Application
 Emilee

The chemicals are stored in sealed container and under cover at all times. The alum bags are 50 lbs each.

Thanks

Stephen O. Spence

7/1/2009

Environmental Services Manager
Central Service Area
Office: 434-767-5543 ext. 5319
Cell: 434-774-0914
Fax - 434-767-4127
Email: steve.spence@vadoc.virginia.gov

From: Carpenter,Emilee [<mailto:Emilee.Carpenter@deq.virginia.gov>]
Sent: Thursday, May 21, 2009 7:32 AM
To: Spence, Steve O.
Subject: RE: VA0020702 Reissuance Application


Steve,

Are the alum and polymer stored in sealed containers or under cover, such that they are protected from weather events?
What size are the alum bags?

Thanks, Steve.

-Emilee

*Emilee C. Carpenter
Water Permit Writer
Department of Environmental Quality
eccarpenter@deq.virginia.gov
804-527-5072*

 **Please consider the environment - do you really need to print this email?**

From: Spence, Steve O. (VADOC)
Sent: Thursday, May 21, 2009 6:57 AM
To: Carpenter,Emilee
Subject: RE: VA0020702 Reissuance Application

Emilee

We use two chemicals at the WWTP. We keep five gallons of polymer on the site for the belt press and we add Alum for TP removal in the clarifiers. The Alum is dry and we never keep more than 50 bags on hand.

Steve

From: Carpenter,Emilee [<mailto:Emilee.Carpenter@deq.virginia.gov>]
Sent: Wed 5/20/2009 3:30 PM
To: Spence, Steve O.
Subject: RE: VA0020702 Reissuance Application

Hi Steve,

I have one more quick question for you. Can you please identify any/all chemicals that are stored on site at the treatment plant and how they are stored (i.e. under cover, in a sealed container, etc)? Let me know if you need clarification.
Thanks.

7/1/2009

Emilee

*Emilee C. Carpenter
Water Permit Writer
Department of Environmental Quality
eccarpenter@deq.virginia.gov
804-527-5072*



Please consider the environment - do you really need to print this email?

7/1/2009

Carpenter, Emilee

From: Spence, Steve O. (VADOC)
Sent: Friday, June 19, 2009 8:15 AM
To: Carpenter, Emilee
Cc: Weddle, Gary (VADOC); Newton, Timothy G. (VADOC); Wilson, Randy A. (VADOC)
Subject: FW: Virginia Correctional Center for Women STW

Attachments: 06182009154550973.pdf

Emilee

The letter from the Health Dept. is attached.

Thanks

Stephen O. Spence

Environmental Services Manager

Central Service Area

Office: 434-767-5543 ext. 5319

Cell: 434-774-0914

Fax - 434-767-4127

Email: steve.spence@vadoc.virginia.gov <<mailto:steve.spence@vadoc.virginia.gov>>

From: Morrisette, Randall (VDH) [<mailto:Randall.Morrisette@vdh.virginia.gov>]
Sent: Thursday, June 18, 2009 4:54 PM
To: Spence, Steve O.
Subject: Virginia Correctional Center for Women STW

Steve,

Attached are the documents from this Office approving (with conditions) the new outfall on the bank of the James River for the Virginia Correctional Center for Women sewage treatment works. If you can not download these documents, please let me know, and I will fax them to you.

Randy Morrisette



0618200915455097
3.pdf (2 MB)

Carpenter, Emilee

From: Spence, Steve O. (VADOC)
Sent: Friday, June 19, 2009 8:26 AM
To: Carpenter, Emilee

Attachments: scan0001.jpg

Info.

Stephen O. Spence

Environmental Services Manager

Central Service Area

Office: 434-767-5543 ext. 5319

Cell: 434-774-0914

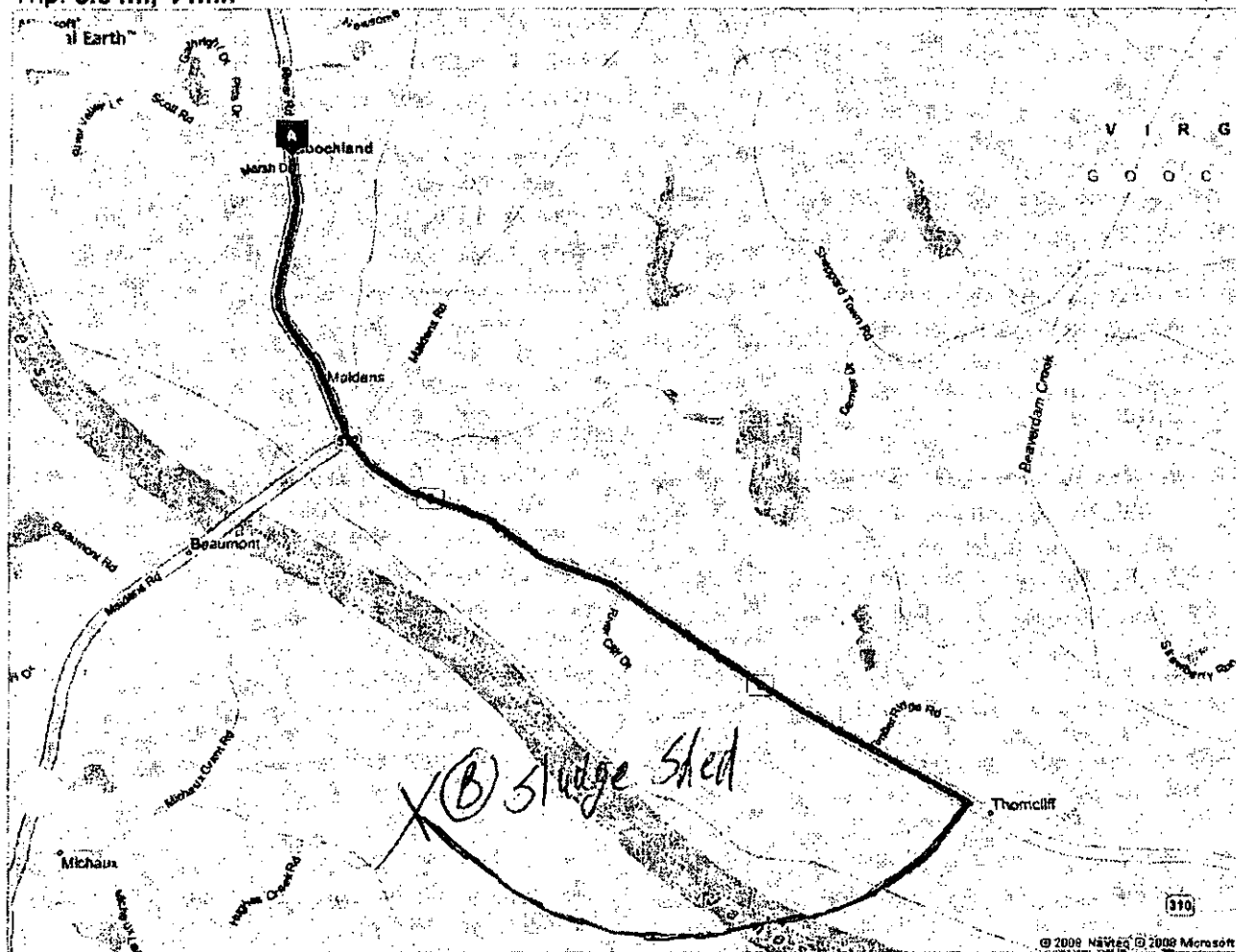
Fax - 434-767-4127

Email: steve.spence@vadoc.virginia.gov <<mailto:steve.spence@vadoc.virginia.gov>>



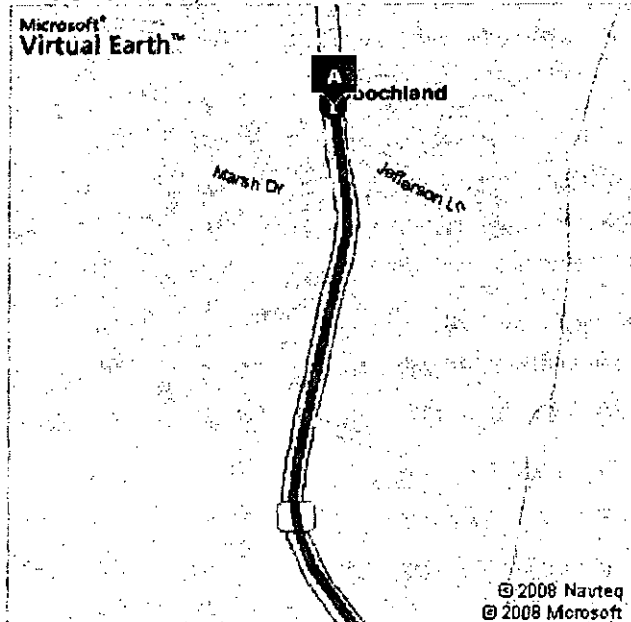
scan0001.jpg (4
MB)

Trip: 3.5 mi, 4 min

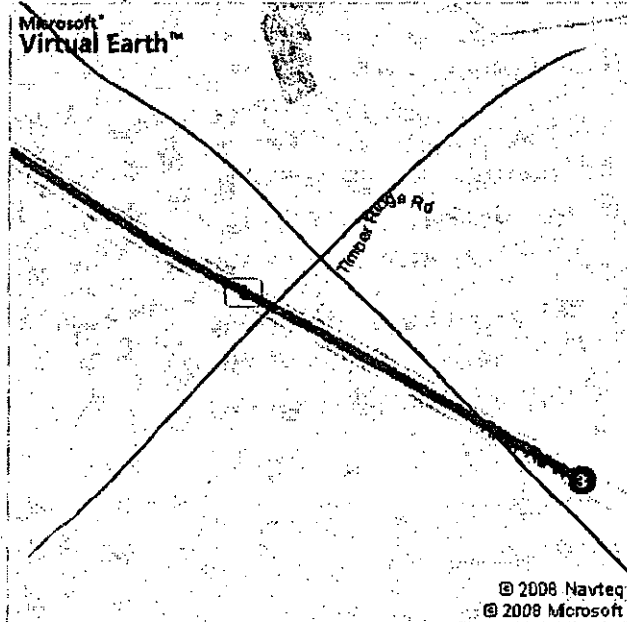


This map is based on the map view in the browser window when you clicked Print

A: Goochland, VA



B: 23160, VA





COMMONWEALTH of VIRGINIA

*Department of Health
Office of Water Programs*

REPLY TO

EAST CENTRAL FIELD OFFICE
CLOVERLEAF OFFICE PARK
300 TURNER ROAD
RICHMOND, VIRGINIA 23225
PHONE: 674-2880; FAX 674-2815

SUBJECT: GOOCHLAND COUNTY
Water - James River Correctional Center
Sewerage - Virginia Correctional Center for Women

January 6, 2000

Mr. Gary L. Weddle
Capital Outlay Program Manager
Department of Corrections
6900 Atmore Drive
Richmond, Virginia 23225

Dear Mr. Weddle:

The Division of Water Supply Engineering has reviewed the alternative discussed in your November 2, 1999 letter for achieving adequate separation between the discharge point for the upgraded sewage treatment works at Virginia Correctional Center for Women (VCCW STW) and the intake for the James River Correctional Center water treatment plant (JRCC WTP). Both of these facilities are located on the James River in Goochland County. The alternative would involve relocating the WTP intake 0.3-0.5 miles downstream of its present site when the new 3 MGD WTP is constructed, and locating the discharge point for the expanded VCCW STW at the western edge of the VCCW property, which is approximately 0.3 miles upstream of its present location.

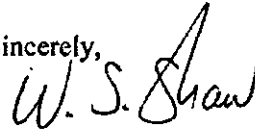
We have no objection to the proposed alternative, with the following conditions:

1. The separation distance between the STW discharge point and the WTP intake shall be a minimum of 4.5 miles, in accordance with our earlier approval;
2. The VPDES permit shall include a fecal coliform limit of 20 colonies/100 ml, and the disinfection facilities and chlorine contact tank for the sewage treatment works expansion shall be designed to help ensure that this limit is met;
3. The sewage treatment works shall be designated Reliability Class I and the design shall comply with all requirements for continuous operability; and
4. The average monthly flow from the VCCW STW shall not exceed 0.170 mgd for any month until the relocated JRCC WTP intake is in operation.

Mr. Gary L. Weddle
January 6, 2000
Page 2

If we can assist you further, please contact Randall L. Morrisette at 674-2886.

Sincerely,

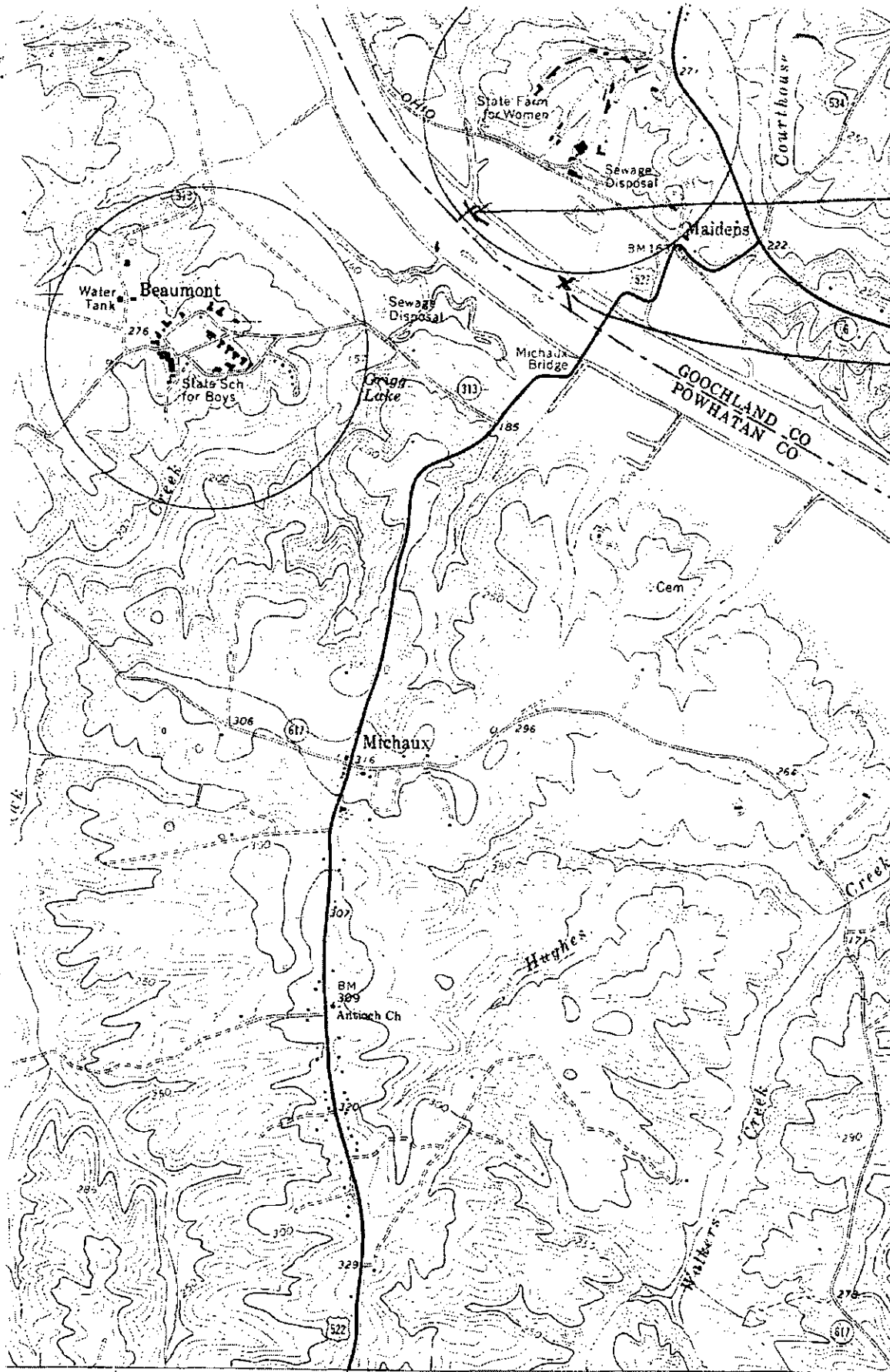


W. S. Shaw, P.E.
Engineering Field Director
Office of Water Programs

cc: Mr. William T. Davis, Department of Corrections
Mr. Randall M. Hubble, Department of Corrections – Central Region
Mr. Jeffrey J. Haas, P.E., Austin Brockenbrough and Associates
Mr. Allan Brockenbrough, DEQ - Piedmont
VDH – Office of Environmental Health Services, DWE
VDH – Central Office, DWSE

File: r:\15b\letters\Weddle.doc

ELM



Proposed VCCW
Discharge Point
(4.1 mile up)
at Courledge off
VCCW property.

Current
VCCW Discharge
Point

ROAD CLASSIFICATION

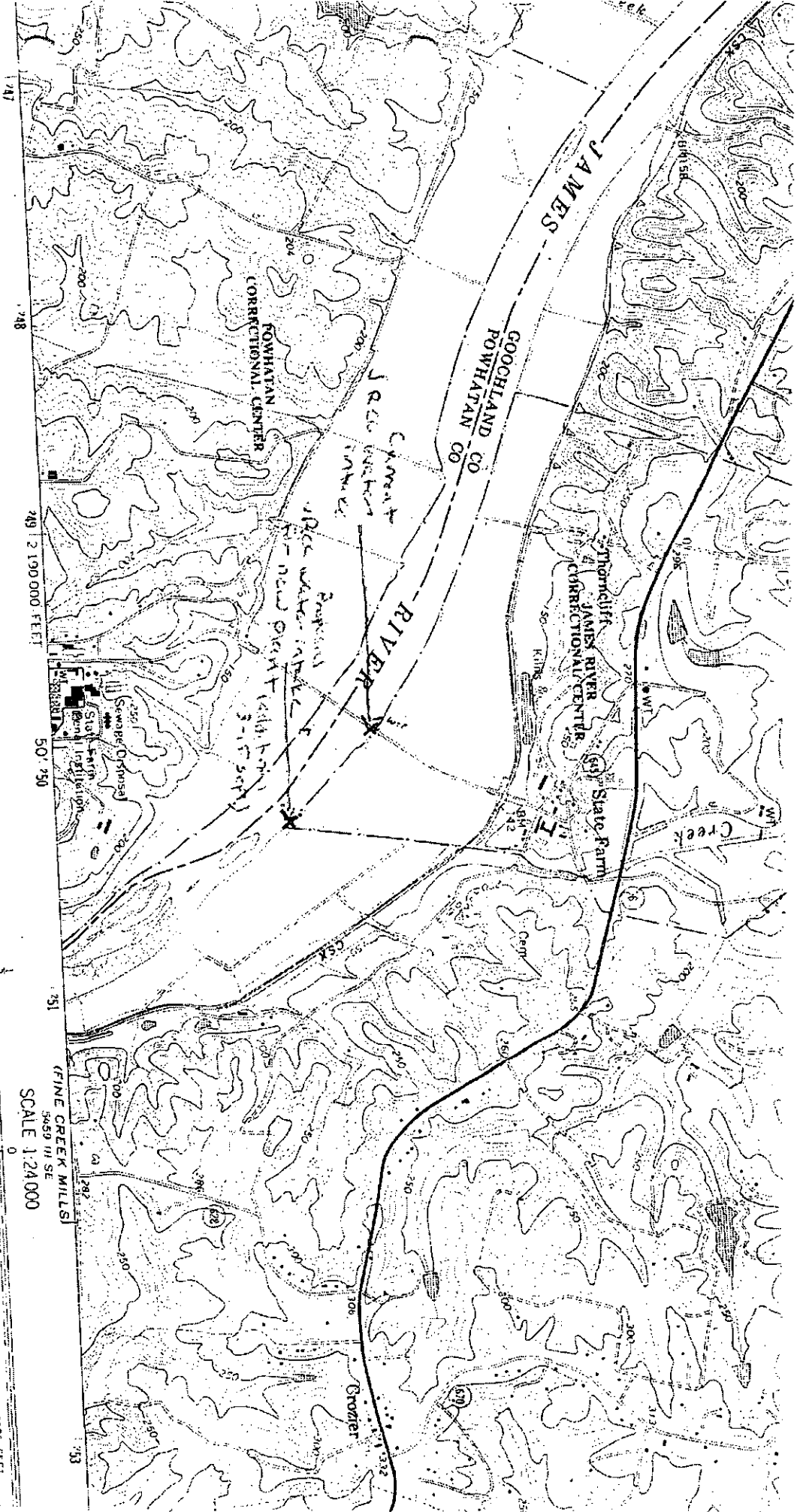
Primary highway, all weather, hard surface _____

Light duty road, all weather, improved surface _____

Unimproved road, fair or dry weather _____

U.S. Route _____ State Route _____

(FINE CREEK MILLS)
3459 III SE



dated, and published by the Geological Survey

USGS and NOS/NOAA

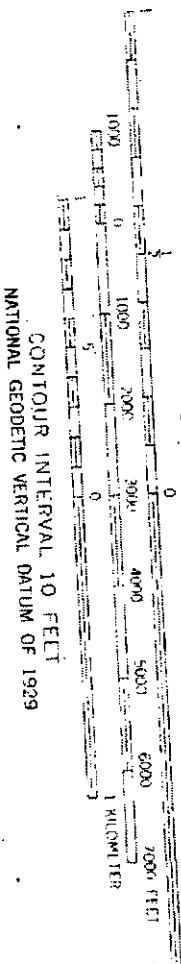
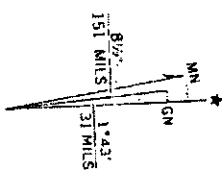
by photogrammetric methods from aerial
taken 1962. Field checked 1968

projection. 1927 North American Datum
grid based on Virginia coordinate system, south zone
Universal Transverse Mercator grid ticks,

shown in blue
the predicted North American Datum 1983
projection lines 11 meters south and 25 meters
shown by dashed corner ticks

shed lines indicate selected fence and field lines where
possible on aerial photographs. This information is unchecked
be private inholdings within the boundaries of the
State reservations shown on this map

UTM GRID AND 1987 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET



SCALE 1:24,000

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR RESTON, VIRGINIA 22903
AND VIRGINIA DIVISION OF MINERAL RESOURCES, CHARLOTTESVILLE, VIRGINIA 22903
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Carpenter,Emilee

From: Spence, Steve O. (VADOC)
Sent: Thursday, June 18, 2009 9:24 AM
To: Carpenter,Emilee
Subject: RE: VCCW Facility Location

The address of 2841 River Road West Goochland, VA 23063 is accurate. This is their 911 address. I will make the necessary changes on my paperwork. Can you make the change on your end?

The route to the sludge shed is as far as mapquest would take me. All of the roads within the State Farm are owned by DOC and do not show on the map. I will have to hand draw the rest of the map for you.

Stephen O. Spence

Environmental Services Manager
 Central Service Area
 Office: 434-767-5543 ext. 5319
 Cell: 434-774-0914
 Fax - 434-767-4127
 Email: steve.spence@vadoc.virginia.gov

From: Carpenter,Emilee [<mailto:Emilee.Carpenter@deq.virginia.gov>]
Sent: Wednesday, June 17, 2009 5:38 PM
To: Spence, Steve O.
Subject: VCCW Facility Location

Hi Steve,

Like we discussed on the phone, there is a bit of confusion regarding the facility address. The previous permit showed a "911" address of 2841 River Road West, Goochland 23063.

The application revision received 3/03/09 (by email) identified the address as State Farm, VA 23160.

The attached PDF shows the plotted location via Google Maps of State Farm for Women, VA 23102. The State Farm, VA 23160 plots below the Maidens bridge, where the James River facility is located.

I did not mention this on the phone, but the sludge hauling route appears to be between VCCW and James River. It does not lead to Powhatan, the receiving facility. Please revise this and resubmit it via email.

Please don't hesitate to contact me if you have any questions. I look forward to hearing from you.

Thanks,

Emilee C. Carpenter
 Water Permit Writer
 Department of Environmental Quality
emilee.carpenter@deq.virginia.gov (note: this is a new address)
 804-527-5072



Please consider the environment - do you really need to print this email?

6/18/2009

From: Spence, Steve O. (VADOC)
Sent: Friday, May 29, 2009 8:34 AM
To: Carpenter,Emilee
Subject: info.

Attachments: scan0001.gif

Emilee

Here is the last sample data you needed.

Thanks

Stephen O. Spence

Environmental Services Manager

Central Service Area

Office: 434-767-5543 ext. 5319

Cell: 434-774-0914

Fax - 434-767-4127

Email: steve.spence@vadoc.virginia.gov <<mailto:steve.spence@vadoc.virginia.gov>>



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KB)

Parameter	Results	Reporting Limit	Units
Gross Alpha Activity	ND	5.00	pCi/L
Gross Beta Activity	7.97	5.00	pCi/L
Strontium 90	ND	2.00	pCi/L
Tritium	ND	700	pCi/L
Demeton-o	<0.50	2.5	ug/L
Demeton-s	<0.25	2.5	ug/L
Chlorpyrifos	<0.25	1.0	ug/L
Guthion	<0.50	1.0	ug/L
Malathion	<0.18	1.0	ug/L
MBAS Surfactants	<0.100	0.100	mg/L
TBT Tributyltin	<	30	ng/L

Let me know if I can be of any further assistance.

Sincerely,

Jessica Comstock
Project Manager

Carpenter,Emilee

From: Spence, Steve O. (VADOC)
Sent: Wednesday, May 27, 2009 10:05 AM
To: Carpenter,Emilee

Attachments: scan0001.gif; scan0002.gif; scan0003.gif

Emilee

Attached are the chromium results from the VCCW sludge.

Stephen O. Spence

Environmental Services Manager

Central Service Area

Office: 434-767-5543 ext. 5319

Cell: 434-774-0914

Fax - 434-767-4127

Email: steve.spence@vadoc.virginia.gov <<mailto:steve.spence@vadoc.virginia.gov>>



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KB)



scan0002.gif (58
KB)



scan0003.gif (69
KB)



LABORATORIES, INC.

2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 368-8296 Fax: (804) 368-8297

Certificate of Analysis

Final Report

Laboratory Order ID 09020275

Client Name: James River Correctional Center

Date Received:

February 19, 2009

Date Issued:

February 26, 2009

State Farm, VA 23160

Submitted To: Randy Wilson

Project Number: NA

Client Site I.D.: VCCW Sludge

Purchase Order NA

Sample I.D.: VCCW 2-19-09

Laboratory Sample I.D.: 09020275-001

Date/Time Sampled: 02/19/09 08:10

Parameter	Method	Sample Results	Rep Limit	Analyst Date/Time	Analyst
Chromium	SW6010C	23.3 mg/kg	4.77	02/26/09 12:39	CGT


Ted Soyars

Laboratory Manager



2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 09020274

Client Name: James River Correctional Center

Date Received:

February 19, 2009

Date Issued:

February 26, 2009

State Farm, VA 23160

Submitted To: Randy Wilson

Project Number: NA

Client Site I.D.: VCCW Sludge

Purchase Order: NA

Sample I.D.: VCCW Sludge

Laboratory Sample I.D.: 09020274-001

Date/Time Sampled: 02/18/09 07:10

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
Chromium	SW6010C	17.6 mg/kg	5.00	02/26/09 12:38	OGT


Ted Boyers

Laboratory Manager



2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 09040028

Client Name: James River Correctional Center

Date Received:

April 02, 2009

Date Issued:

April 09, 2009

State Farm, VA 23160

Submitted To: Randy Wilson

Project Number:

NA

Client Site I.D.: VCCW Sludge

Purchase Order

NA

Sample I.D.: VCCW Sludge 4-1-09

Laboratory Sample I.D.: 09040028-001

Date/Time Sampled: 04/01/09 13:00

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
Chromium	SW8010C	15.1 mg/kg	1.58	04/06/09 14:23	CGT


Ted Soyars

Laboratory Manager

Carpenter,Emilee

From: Spence, Steve O. (VADOC)
Sent: Tuesday, March 03, 2009 2:36 PM
To: Carpenter,Emilee
Subject: RE: VADOC-VCCW: VA0020702 Reissuance Application

1 - The address should have been: State Farm
State Farm, Va 23160

2 - The JRCC Water Plant intake has been placed into operation. We have been using the new WTP intake for over a year now.

Thanks

Stephen O. Spence

Environmental Services Manager
Central Service Area
Office: 434-767-5543 ext. 5319
Cell: 434-774-0914
Fax - 434-767-4127
Email: steve.spence@vadoc.virginia.gov

From: Carpenter,Emilee [<mailto:eccarpenter@deq.virginia.gov>]
Sent: Tuesday, March 03, 2009 2:27 PM
To: Spence, Steve O.
Subject: RE: VADOC-VCCW: VA0020702 Reissuance Application

Hi Steve,

Thanks for sending me an update. I look forward to receiving the chromium results. Two additional questions have arisen since we last spoke:

- 1) EPA Application Form 2A.Part A.1appears to show the wrong facility address. Will you please verify the correct facility address?
- 2) Part I.B.1 of the current permit, which addresses the existing 0.300 MGD plant, states that the average monthly flow shall not exceed 0.170 MGD for any month until the relocated James River Correctional Center Water Treatment Plant intake is placed into operation. Per the file, VDH required a 4.5 mile separation distance between VCCW's outfall and the aforementioned intake, which would require relocation of both VCCW's outfall 001 and the PWS intake. I know VCCW's outfall was relocated to the current outfall 002. Has the intake for James River Correctional Center WTP been relocated as well?

Email responses to these questions will suffice. I will attach your response to the application as an addendum.

Thanks again,

Emilee C. Carpenter
Water Permit Writer
Department of Environmental Quality
eccarpenter@deq.virginia.gov

3/3/2009

804-527-5072

*Please consider the environment - do you really need to print this email?*

From: Spence, Steve O. (VADOC)
Sent: Tuesday, March 03, 2009 2:01 PM
To: Carpenter,Emilee
Subject: RE: VADOC-VCCW: VA0020702 Reissuance Application

Emilee

Remaining Issues:

- 1 – TRC analysis detection level is <0.06mg/l
- 2 – We have grabbed our first Chromium sample and will have you the three samples within thirty days.
- 3 – Sent in an earlier email.

Thanks

Stephen O. Spence

Environmental Services Manager
 Central Service Area
 Office: 434-767-5543 ext. 5319
 Cell: 434-774-0914
 Fax - 434-767-4127
 Email: steve.spence@vadoc.virginia.gov

From: Carpenter,Emilee [<mailto:eccarpenter@deq.virginia.gov>]
Sent: Friday, February 13, 2009 10:00 AM
To: Spence, Steve O.
Cc: Newton, Timothy G.
Subject: VADOC-VCCW: VA0020702 Reissuance Application

Hi Steve,

Thank you for meeting with me yesterday to resolve the application deficiencies. As we discussed yesterday, there are three remaining issues that must be addressed before the application is technically complete:

- 1) EPA Form 2A, Part A.12: The TRC result is reported as non-detect (ND). Please provide the analysis detection level for the three samples.
- 2) VPDES Sludge Application, A.8: Chromium results were not reported. The application reports "na" for this parameter. Please either justify why this parameter is not applicable or provide sample results. Per the application instruction, "all data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old." If you do collect samples, please ensure that they comply with these application requirements.
- 3) VPDES Sludge Application, B.6.i: This part of the application requests a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G. The attachment is indicated present on the form, but not present in the application package. Please provide the attachment.

Responses to these deficiencies may be submitted by email. Please let me know if you have any questions.

3/3/2009

It was a pleasure meeting with you and Tim both. I wish you the best of luck in your pioneering biodiesel and recycling ventures, and hope that other agencies, including DEQ, will partner in support.

Sincerely,

Emilee C. Carpenter
Water Permit Writer
Department of Environmental Quality
eccarpenter@deq.virginia.gov
804-527-5072



Please consider the environment - do you really need to print this email?

Carpenter,Emilee

From: Spence, Steve O. (VADOC)
Sent: Tuesday, March 03, 2009 2:00 PM
To: Carpenter,Emilee
Subject: permit info.
Attachments: scan0001.gif

Emilee

Attached is a copy of the form we use at our sludge receiving storage shed.

Thanks

Stephen O. Spence

Environmental Services Manager

Central Service Area

Office: 434-767-5543 ext. 5319

Cell: 434-774-0914

Fax - 434-767-4127

Email: steve.spence@vadoc.virginia.gov

_____ Wastewater Plant Sludge Application Log Month of _____,

[illegible]

From: Spence, Steve O. (VADOC)
Sent: Wednesday, February 18, 2009 4:02 PM
To: Carpenter,Emilee
Subject: RE: VA0020702: Reissuance Application
I concur with the outfall coordinates. I will make the necessary changes to my permit reissuance copy.

Thanks


From: Carpenter,Emilee [mailto:eccarpenter@deq.virginia.gov]
Sent: Wednesday, February 18, 2009 2:43 PM
To: Spence, Steve O.
Subject: VA0020702: Reissuance Application

Hi Steve,

As discussed in our meeting last week, the coordinates provided in your application plot North of the unnamed tributary on the property. We acknowledged in the meeting that the actual outfall 002 is slightly south of the trib and the coordinates should be adjusted. Based on trial and error in google maps, I am proposing revised coordinates that better reflect the outfall location: 37° 40' 13.5", -77° 53' 45.4". Follow this [link](#) to see the proposed coordinates plotted on a google map. If you concur with the outfall location, please send a verification email. Thank you.

Sincerely,
Emilee

Emilee C. Carpenter
Water Permit Writer
Department of Environmental Quality
eccarpenter@deq.virginia.gov
804-527-5072

 Please consider the environment - do you really need to print this email?

From: Spence, Steve O. (VADOC)
Sent: Friday, January 30, 2009 2:51 PM
To: Carpenter,Emilee
Subject: Info.
Emilee

We did run three hardness test within the last four months. The average hardness was 123.5 mg/l.

Steve

January 05, 2009

Emilee Carpenter
DEQ-SCRO Permit Writer
Department of Environmental Quality
4949 A Cox Road
Glen Allen, VA 23060

RECEIVED

JAN 06 2009

PRO

Re: VCCW Permit

Dear Ms. Carpenter

The Virginia Correctional Center for Women WWTP VPDES and sludge reissuance permits are attached.

Should you have any questions, please call at 434-767-5543 ext. 5319.

Sincerely



Steve Spence
Environmental Services Unit Manager
Central Service Area

Cc: VA Dept. of Health
Tim Newton

PUBLIC NOTICE BILLING INFORMATION FORM

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in accordance with 9 VAC 25-31-290. C. 2.

Agent/Department to be billed:

Agent/Department to be billed:

Tim Newton

Owner:

Department of Corrections

Applicant's Address:

6900 Atmore Drive
Richmond, VA 23225

Agent's Telephone No:

804-674-3303

Authorizing Agent:


Signature

Facility Name:

Virginia Correctional Center for Women

Permit No:

VA0020702

Please return to:

Ms. Emilee Carpenter
DEQ - Piedmont Regional Office
4949 A-Cox Road
Glen Allen, VA 23060

Fax Number: 804-527-5106

VPDES Permit Application Addendum

1. Entity to whom the permit is to be issued:

Who will be legally responsible for the wastewater treatment facilities and compliance with the permit?
This may or may not be the facility or property owner.

Department of Corrections

2. Is this facility located within city or town boundaries?

Y ☒ N

3. Provide the tax map parcel number for the land where the discharge is located.

42-1-19

4. For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?

none

5. What is the design average effluent flow of this facility?

0.300

MGD

For industrial facilities, provide the max. 30-day average production level, include units:

In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels?

Y ☒ N

If "Yes", please identify the other flow tiers (in MGD) or production levels:

Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

6. Nature of operations generating wastewater:

Department of Corrections

100 % of flow from domestic connections/sources

Number of private residences to be served by the treatment works:

0 % of flow from non-domestic connections/sources

7. Mode of discharge: ☒ Continuous ☒ Intermittent ☐ Seasonal

Describe frequency and duration of intermittent or seasonal discharges:

8760 discharges / year - 45 MIN / discharge 505

8. Identify the characteristics of the receiving stream at the point just above the facility's discharge point:

- ☒ Permanent stream, never dry
☐ Intermittent stream, usually flowing, sometimes dry
☐ Ephemeral stream, wet-weather flow, often dry
☐ Effluent-dependent stream, usually or always dry without effluent flow
☐ Lake or pond at or below the discharge point

Other: _____

9. Approval Date(s):

O & M Manual 1-08-2008 Sludge/Solids Management Plan

9-14-98

Have there been any changes in your operations or procedures since the above approval dates?

Y ☒ N

VCCW

VA0020702

FORM

2A

NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

- A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
 - 1. Has a design flow rate greater than or equal to 1mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to provide the information.
- E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
 - 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 - 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

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BASIC APPLICATION INFORMATION

PART A BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information Packet.

A.1. Facility Information.

Facility Name Virginia Correctional Center for Women

Mailing Address State Farm
State Farm, VA 23160

Contact Person Steve Spence

Title Environmental Services Unit Manager

Telephone Number (434) 767-5543 Ext. 5319

Facility Address 2892 Schutt Road
(not P.O. Box) Burkeville, VA 23922

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant Name Virginia Department of Corrections

Mailing Address 6900 Atmore Drive
Richmond, VA 23225

Contact Person Tim Newton

Title Environmental Services Unit Director

Telephone Number (804) 674-3303 Ext. 1195

Is the applicant the owner or operator (or both) of the treatment works?

☒ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☐ facility ☒ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES VA0020702

PSD _____

UIC _____

Other _____

RCRA _____

Other _____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
VCCW	385	separate sanitary sewer	DOC
Goochland	1300		
Total population served 1685			

FACILITY NAME AND PERMIT NUMBER:

VCCW VA0020702

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OMB Number 2040-0086**A.5. Indian Country.**

- a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No**A.6. Flow.** Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

- a. Design flow rate
- 3
- mgd

	Two Years Ago	Last Year	This Year
b. Annual average daily flow rate	<u>.126</u>	<u>.160</u>	<u>.179</u>
c. Maximum daily flow rate	<u>.204</u>	<u>.313</u>	<u>.264</u>

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

- ☒ Separate sanitary sewer 100 %
- ☐ Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.?
- ☒
- Yes
- ☐
- No

If yes, list how many of each of the following types of discharge points the treatment works uses:

- i. Discharges of treated effluent 1
- ii. Discharges of untreated or partially treated effluent 0
- iii. Combined sewer overflow points 0
- iv. Constructed emergency overflows (prior to the headworks) 0
- v. Other _____

- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharge to surface impoundment(s) _____ mgd

Is discharge ☐ continuous or ☒ intermittent?

- c. Does the treatment works land-apply treated wastewater?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ mgd

Is land application ☐ continuous or ☐ intermittent?

- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?
- ☐
- Yes
- ☒
- No

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If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter Name _____

Mailing Address _____

Contact Person _____

Title _____

Telephone Number () _____

For each treatment works that receives this discharge, provide the following:

Name _____

Mailing Address _____

Contact Person _____

Title _____

Telephone Number () _____

If known, provide the NPDES permit number of the treatment works that receives this discharge _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8. through A.8.d above (e.g., underground percolation, well injection): ☐ Yes ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed by this method: _____

Is disposal through this method ☐ continuous or ☐ intermittent?

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WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number 001 505
- b. Location James River (Middle) 23160
(City or town, if applicable) (Zip Code)
- Goochland VA
(County) (State)
- N 37.67066 N 37° 40' 14.4" W 77.8965 W 77° 53' 47.4"
(Latitude) (Longitude)
- c. Distance from shore (if applicable) Bank discharge ft.
- d. Depth below surface (if applicable) n/a ft.
- e. Average daily flow rate .179 mgd
- f. Does this outfall have either an intermittent or a periodic discharge? ☒ Yes ☒ No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs: 8760
- Average duration of each discharge: 45 min.
- Average flow per discharge: 0.005 mgd
- Months in which discharge occurs: 12
- g. Is outfall equipped with a diffuser? ☐ Yes ☒ No

A.10. Description of Receiving Waters.

- a. Name of receiving water James River
- b. Name of watershed (if known) James River Basin
- United States Soil Conservation Service 14-digit watershed code (if known): 02080205030H38
- c. Name of State Management/River Basin (if known): Department of Conservation and Recreation
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): JM79
- d. Critical low flow of receiving stream (if applicable)
acute n/a cfs chronic n/a cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): n/a mg/l of CaCO₃

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A.11. Description of Treatment

a. What levels of treatment are provided? Check all that apply.

☒ Primary☒ Secondary☐ Advanced☐ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD5 removal or Design CBOD5 removal 95 %

Design SS removal 85 %

Design P removal n/a %

Design N removal n/a %

Other _____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe:

UV

If disinfection is by chlorination is dechlorination used for this outfall?

☐ Yes☐ No

d. Does the treatment plant have post aeration?

☒ Yes☐ No

A.12 Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.3	s.u.			
pH (Maximum)	7.2	s.u.			
Flow Rate	.258	MGD	.231	MGD	3
Temperature (Winter)	7.2	C	5.8	C	3
Temperature (Summer)	26.6	C	25.	C	3

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD5	3.8	mg/l	2.6	mg/l	3	5210 B	2.0
	CBOD5	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FECAL COLIFORM	105	waiver	n/a	n/a	n/a	3	9222 B	2.0
TOTAL SUSPENDED SOLIDS (TSS)		3.27	mg/l	2.61	mg/l	3	25401 D	0.5

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

VCCW

VA 0020702

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BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

505 n/a 20,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

ABC will smoke test sewer lines throughout institution to detect possible inflow and infiltration.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- The area surrounding the treatment plant, including all unit processes. Attached
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- Each well where wastewater from the treatment plant is injected underground.
- Wells, springs, other surface water bodies, and drinking water wells that are: 1) within $\frac{1}{4}$ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where the hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ☐ Yes ☒ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

Telephone Number: () _____

Responsibilities of Contractor: _____

B.5. Scheduled improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

- a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

n/a

- b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

☐ Yes

☐ No

FACILITY NAME AND PERMIT NUMBER:

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c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM/DD/YYYY	Actual Completion MM/DD/YYYY
- Begin Construction	/ /	/ /
- End Construction	/ /	/ /
- Begin Discharge	/ /	/ /
- Attain Operational Level	/ /	/ /

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly: _____

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide effluent testing for the following listed parameters and those required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum effluent testing data must be based on at least three pollutant scans, preferably represent several seasons, and must be no more than four and on-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS							
AMMONIA (as N)	6.58	mg/l	4.24	mg/l	3	SM 4500-NH3	0.1
CHLORINE (TOTAL RESIDUAL, TRC)	ND	mg/l	ND	mg/l	3	HACH 8167	0.1
DISSOLVED OXYGEN	9.8	mg/l	9.5	mg/l	3	SM - 4500 OG	0.1
TOTAL KJELDAHL NITROGEN (TKN)	7.9	mg/l	5.56	mg/l	3	EPA 351.2	0.2
NITRATE PLUS NITRITE NITROGEN	.95	mg/l	.556	mg/l	3	EPA 300.0	0.1
OIL and GREASE	<10	mg/l	<10	mg/l	3	EPA 1664A	10.0
PHOSPHORUS (Total)	1.96	mg/l	1.15	mg/l	3	SM 4500-PE	0.05
TOTAL DISSOLVED SOLIDS (TDS)	1210	mg/l	657	mg/l	3	SM 2540C	10
OTHER	-	-	-	-	-	-	-

END OF PART B.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

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BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

☒ Basic Application Information packet

Supplemental Application Information packet:

505 ☒ Part D (Expanded Effluent Testing Data)

☒ Part E (Toxicity Testing: Biomonitoring Data)

☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

☐ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Tim Newton\ Environmental Services Unit Director

Signature *Timothy Newton*

Telephone number (804) 674-3303 Ext. 1195

Date signed 2/12/09 *TN*

Upon request of the permitting authority, you must submit any other information necessary to assure wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME:

VCCW

VPDES PERMIT NUMBER:

VA0020702

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Does this facility generate sewage sludge? ☒ Yes ☐ No

Does this facility derive a material from sewage sludge? ☐ Yes ☒ No

If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Does this facility apply sewage sludge to the land? ☐ Yes ☒ No

Is sewage sludge from this facility applied to the land? ☒ Yes ☐ No

If you answer No to all above, skip Section C.

If you answered Yes to either, answer the following three questions:

a. Does the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
☐ Yes ☒ No

b. Is sewage sludge from this facility placed in a bag or other container for sale or give-away for application to the land? ☐ Yes ☒ No

c. Is sewage sludge from this facility sent to another facility for treatment or blending? ☒ Yes ☐ No

If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? ☐ Yes ☒ No

If Yes, complete Section D (Surface Disposal).

FACILITY NAME:

VCCW

VA 0020702
VPDES PERMIT NUMBER:

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.

- a. Facility name: Virginia Correctional Center for Women
- b. Contact person: Randy Wilson
Title: Environmental Services Unit Supervisor
Phone: (804) 784-3551 Ext. 2299
- c. Mailing address:
Street or P.O. Box: State Farm
City or Town: State Farm State: VA Zip: 23160
- d. Facility location:
Street or Route #: Route 6
County: Goochland
City or Town: Goochland State: VA Zip: 23160
- e. Is this facility a Class I sludge management facility? Yes ☒ No
- f. Facility design flow rate: 0.300 mgd
- g. Total population served: 1685
- h. Indicate the type of facility:
☒ Publicly owned treatment works (POTW)
☐ Privately owned treatment works
☐ Federally owned treatment works
☐ Blending or treatment operation
☐ Surface disposal site
☒ Other (describe): State Owned

2. Applicant Information. If the applicant is different from the above, provide the following:

- a. Applicant name: Virginia Department of Corrections
- b. Mailing address:
Street or P.O. Box: P.O. Box 488
City or Town: Burkeville State: VA Zip: 23922
- c. Contact person:
Title: Stephen O. Spence
Phone: (434) 767-5543 ext. 5319
- d. Is the applicant the owner or operator (or both) of this facility?
☒ owner ☒ operator
- d. Should correspondence regarding this permit be directed to the facility or the applicant?
☐ facility ☒ applicant

3. Permit Information.

- a. Facility's VPDES permit number (if applicable):
- b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

<u>Permit Number:</u>	<u>Type of Permit:</u>
<u>VA0020699</u>	<u>VPDES - Powhatan WWTP Sludge Disposal Permit</u>

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? Yes ☒ No If yes, describe:

FACILITY NAME:

VCCW

VA 0020702
VPDES PERMIT NUMBER:

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
- Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed. *Attached*
 - Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries. *Attached*
6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction. **Aerobically digest sludge for 28 days, use belt press for dewatering, add lime in storage shed for stabilization and commingle before land application.**
7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? Yes X No
If yes, provide the following for each contractor (attach additional pages if necessary).
Name:
Mailing address:
Street or P.O. Box:
City or Town: _____ State: _____ Zip: _____
Phone: () _____
Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic	<2.51	10-14-08	SW6010B	.05
Cadmium	<2.51	10-14-08	SW6010B	.05
Chromium	n/a	10-14-08	SW6010B	3.23
Copper	302	10-14-08	SW6010B	10
Lead	4.05	10-14-08	SW6010B	0.5
Mercury	0.373	10-14-08	SW7471A	0.08
Molybdenum	<12.6	10-14-08	SW6010B	2.5
Nickel	10.3	10-14-08	SW6010B	0.5
Selenium	<12.6	10-14-08	SW6010B	1.0
Zinc	220	10-14-08	SW6010B	5.0

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

X Section A (General Information)
X Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
 _____ Section C (Land Application of Bulk Sewage Sludge)
 _____ Section D (Surface Disposal)

FACILITY NAME:

VCCW

VA 0020702
VPDES PERMIT NUMBER:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Tim Newton /ESU Director

Signature



Date Signed

2/12/09 Tm

Telephone number 804-674-3303 ext. 1195

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME:

VCCW

VPDES PERMIT NUMBER:

VA 0020707

**SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION
OF A MATERIAL DERIVED FROM SEWAGE SLUDGE**

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
Total dry metric tons per 365-day period generated at your facility: 30 dry metric tons
2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
 - a. Facility name:
 - b. Contact Person:
Title:
Phone ()
 - c. Mailing address:
Street or P.O. Box:
City or Town: _____ State: _____ Zip: _____
 - d. Facility Address:
(not P.O. Box)
 - e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons
 - f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:
3. Treatment Provided at Your Facility.
 - a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
Class A ☒ Class B ☐ Neither or unknown
 - b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: Aerobic digestion for 38% reduction of volatile solids.
 - c. Which vector attraction reduction option is met for the sewage sludge at your facility?
☒ Option 1 (Minimum 38 percent reduction in volatile solids)
☐ Option 2 (Anaerobic process, with bench-scale demonstration)
☐ Option 3 (Aerobic process, with bench-scale demonstration)
☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
☐ Option 5 (Aerobic processes plus raised temperature)
☒ Option 6 (Raise pH to 12 and retain at 11.5)
☐ Option 7 (75 percent solids with no unstabilized solids)
☐ Option 8 (90 percent solids with unstabilized solids)
☐ None or unknown
 - d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: Blended with lime and stabilization at sludge holding facility.
 - e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: N/A
4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
 - a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
n/a dry metric tons

FACILITY NAME:

VCC W

VPDES PERMIT NUMBER:

VA0020702

- b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?

Yes X No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: n/a dry metric tons
- b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

- a. Receiving facility name: Powhatan Correctional Center
- b. Facility contact: Randy Wilson
Title: Environmental Services Unit Supervisor
Phone: (804) 784-3551 Ext. 2299
- c. Mailing address:
Street or P.O. Box: State Farm
City or Town: State Farm State: VA Zip: 23160
- d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: 30 dry metric tons
- e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:
Permit Number: VA 0020699 Type of Permit: VPDES Permit
- f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? X Yes No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
 Class A X Class B Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: Add lime to stabilize and blend.
- g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? X Yes No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
 Option 1 (Minimum 38 percent reduction in volatile solids)
 Option 2 (Anaerobic process, with bench-scale demonstration)
X Option 3 (Aerobic process, with bench-scale demonstration)
 Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
 Option 5 (Aerobic processes plus raised temperature)
X Option 6 (Raise pH to 12 and retain at 11.5)
 Option 7 (75 percent solids with no unstabilized solids)
 Option 8 (90 percent solids with unstabilized solids)
 None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: Add lime to stabilize and commingle before land application.
- h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
 Yes X No
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

FACILITY NAME: VCCW

VA 0020702
VPDES PERMIT NUMBER:

- Attached.

7. Land Application of Bulk Sewage Sludge.

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: 149 dry metric tons
- b. Do you identify all land application sites in Section C of this application? ☒ Yes ☐ No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).
- c. Are any land application sites located in States other than Virginia? ☐ Yes ☒ No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.
- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

No land owners bordering application sites

8. **Surface Disposal.**

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ n/a _____ dry metric tons
- b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
____ Yes ____ No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.
- c. Site name or number:
- d. Contact person:
Title:
Phone: ()
Contact is: ____ Site Owner ____ Site operator
- e. Mailing address.
Street or P.O. Box:
City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons
- g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number:

Type of Permit:

FACILITY NAME:

VCCW

VPDES PERMIT NUMBER:

VAD0020702

9. Incineration.

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: n/a dry metric tons
- b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
 Yes No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.
- c. Incinerator name or number:
- d. Contact person:
Title:
Phone: ()
Contact is: Incinerator Owner Incinerator Operator
- e. Mailing address.
Street or P.O. Box:
City or Town: State: Zip:
- f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: dry metric tons
- g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:
Permit Number: Type of Permit:

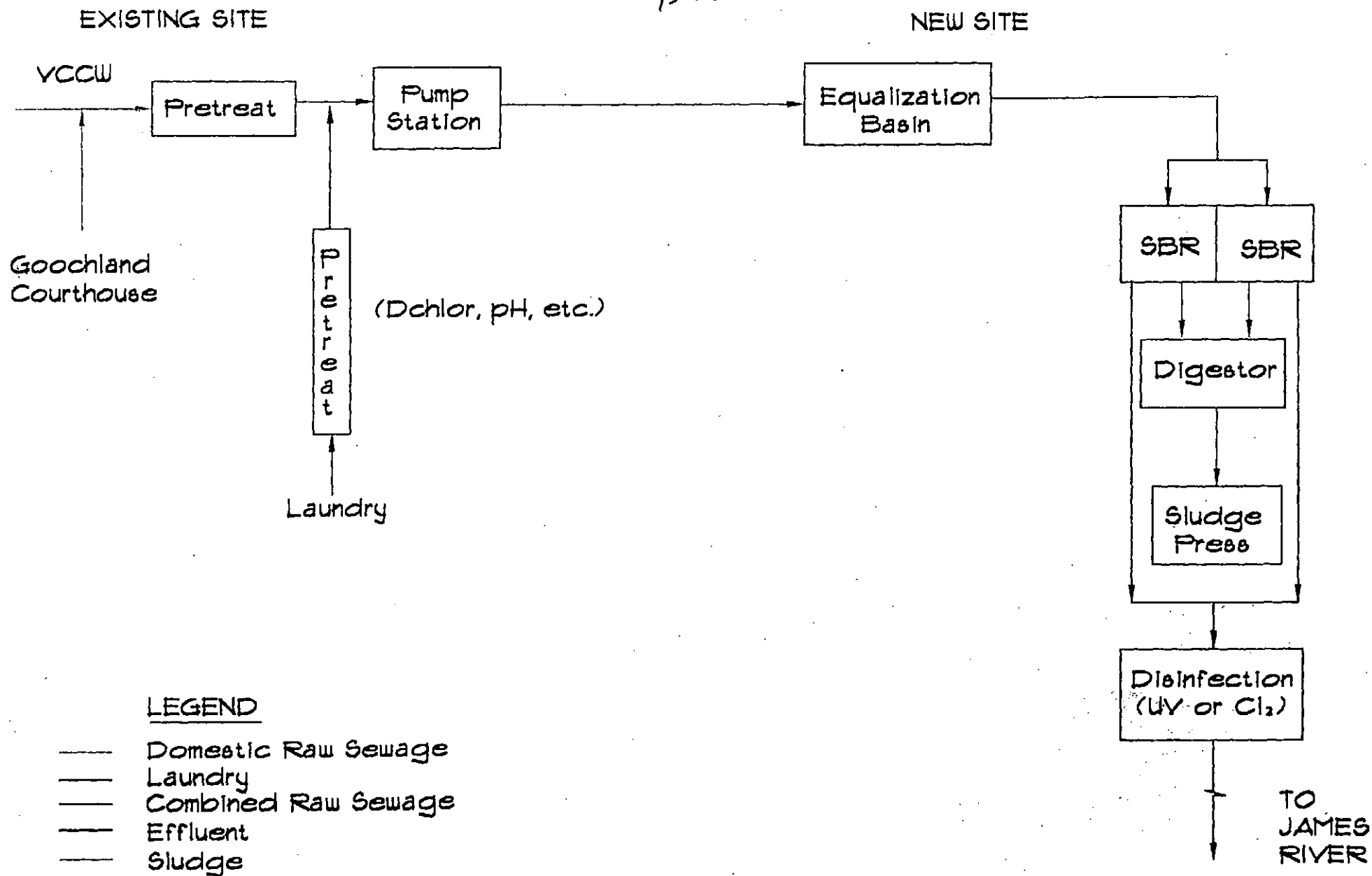
10. Disposal in a Municipal Solid Waste Landfill.

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

- a. Landfill name: n/a
- b. Contact person:
Title:
Phone: ()
Contact is: Landfill Owner Landfill Operator
- c. Mailing address.
Street or P.O. Box:
City or Town: State: Zip:
- d. Landfill location.
Street or Route #:
County:
City or Town: State: Zip:
- e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:
 dry metric tons
- f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:
Permit Number: Type of Permit:
- g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
 Yes No
- h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? Yes No
- i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? Yes No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported.

Plant Layout

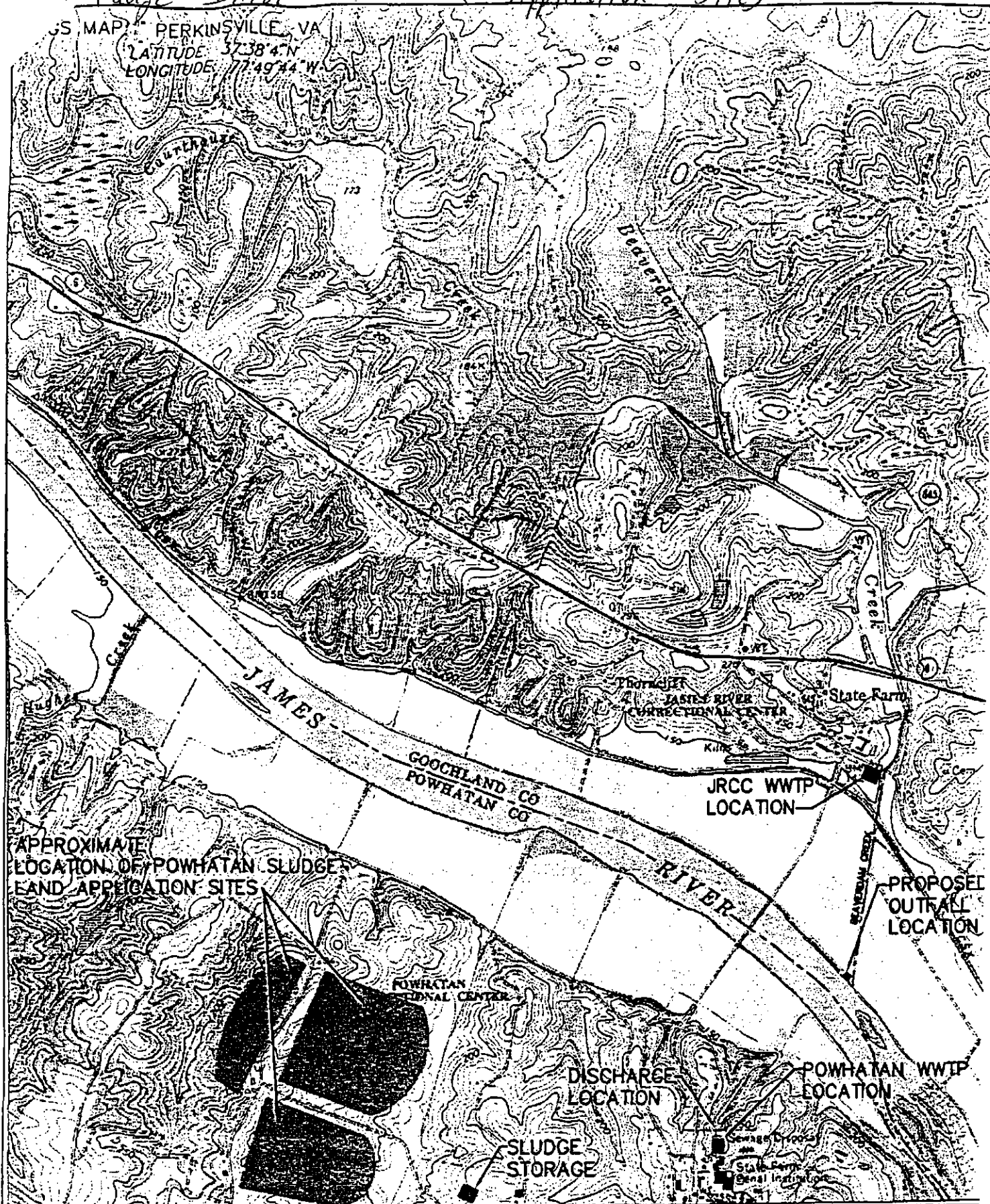
DESIGN FLOW ~~400~~ MGD
1,300 sds



Sludge Info

Land Application Sites

US MAP PERKINSVILLE, VA
 LATITUDE 37°38'4"N
 LONGITUDE 77°49'44"W



TIMMONS

CIVIL ENGINEERS

CORPORATE HEADQUARTERS
 711 N. COURTHOUSE ROAD
 RICHMOND, VIRGINIA 23236-4099
 TELEPHONE: (804) 794-3500
 FAX: (804) 794-7639

JAMES RIVER CORRECTIONAL CENTER
 GOOCHLAND CO., VIRGINIA
 VICINITY MAP

DATE: 2/5/02

SCALE: 1" = 2000'

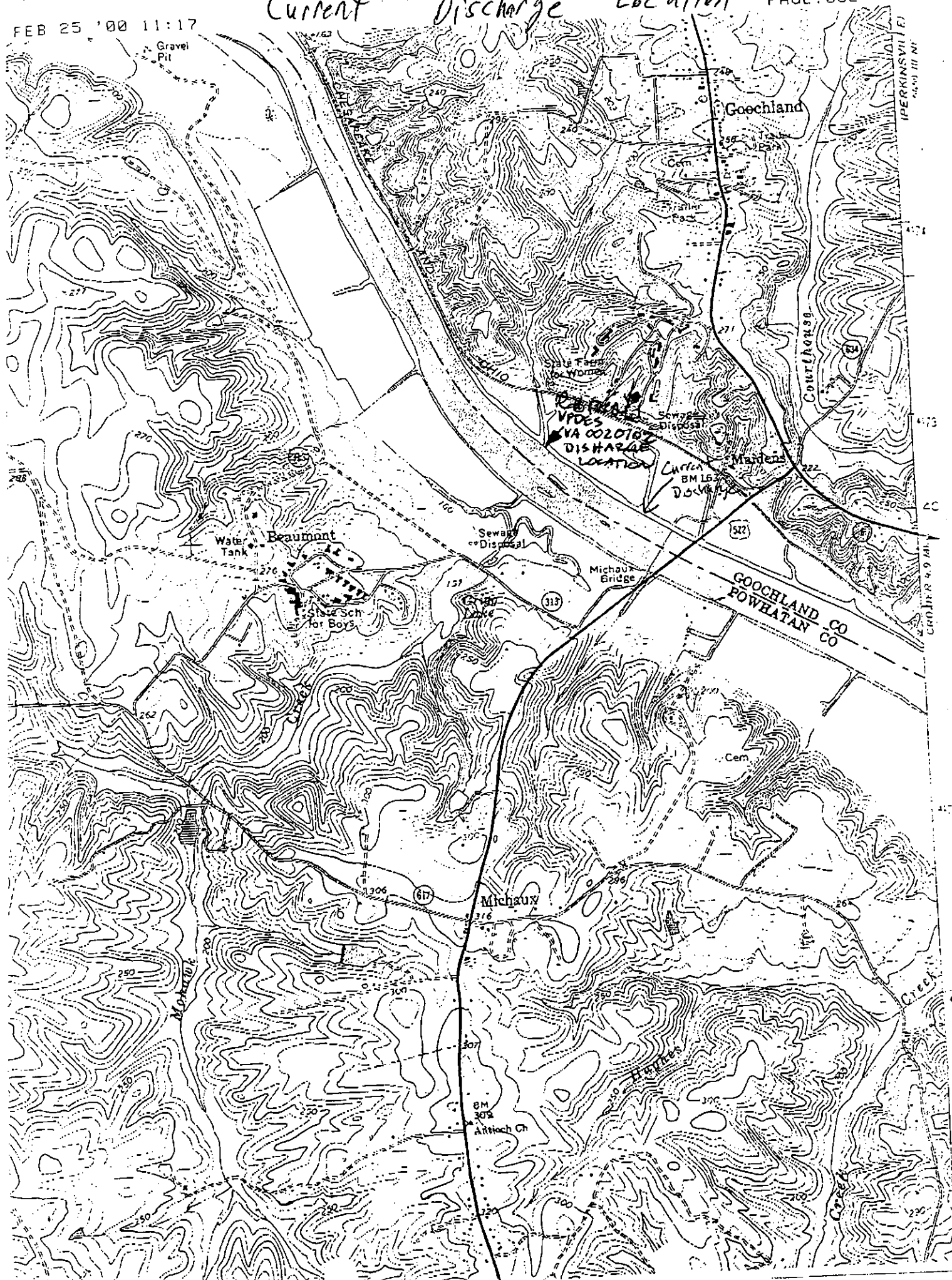
DRAWN BY: DTN

SHEET 1 OF 1

FEB 25 '00 11:17

Current Discharge Location

PAGE 002



VCCW WWTP to Powhatan Sludge Shed



Live Search Maps

A: Goochland, VA

B: 23160, VA

Trip: 3.5 mi, 4 min

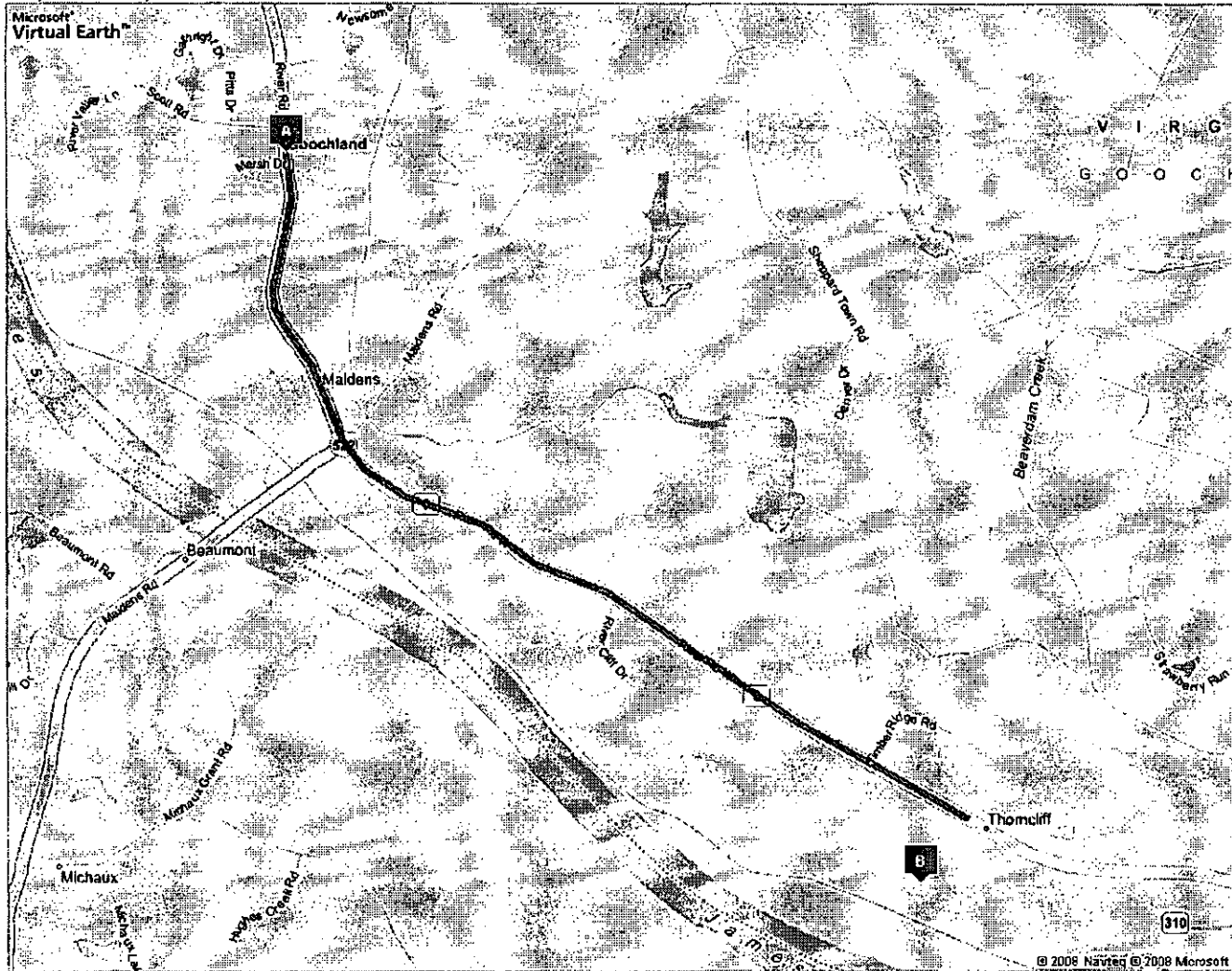
My Notes

FREE! Use Live Search 411 to find movies, businesses & more: 800-CALL-411.

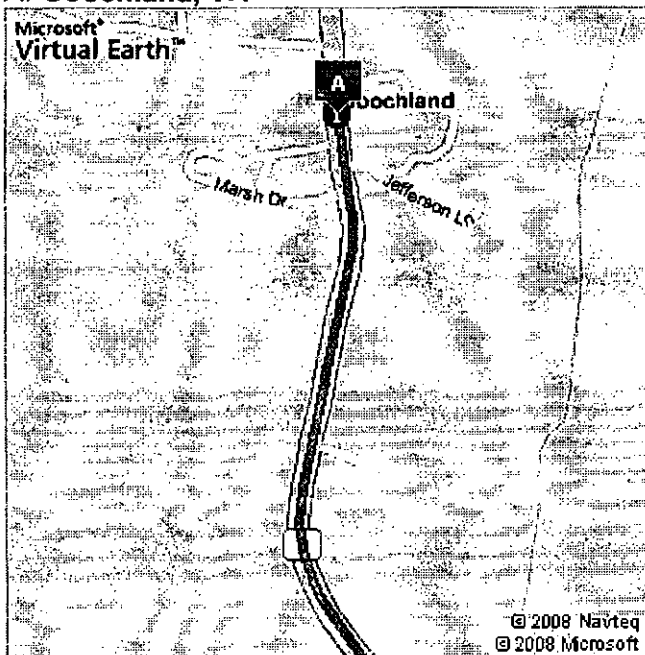
	Goochland, VA	A-B: 3.5 mi 4 min
	1. Depart US-522 / River Rd W	1.0 mi
	2. Keep straight onto SR-6 / River Rd W	2.5 mi
	3. Arrive at 23160, VA on the right <i>The last intersection is Timber Ridge Rd</i> <i>If you reach SR-310 / State Farm Rd, you've gone too far</i>	

These directions are subject to the Microsoft® Live Search Terms of Use and for informational purposes only. No guarantee is made regarding their completeness or accuracy. Construction projects, traffic, or other events may cause actual conditions to differ from these results. Map and traffic data © 2008 NAVTEQ™, AND™.

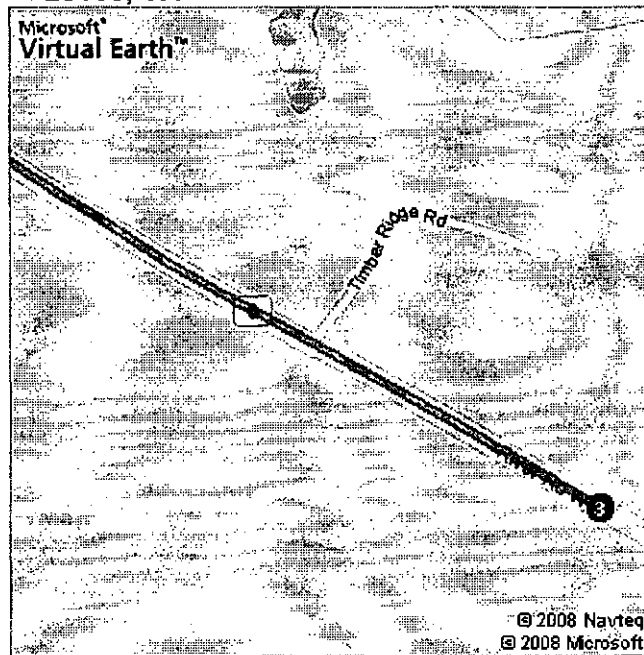
Trip: 3.5 mi, 4 min



A: Goochland, VA



B: 23160, VA



**ATTACHMENT A
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY CRITERIA MONITORING**

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
METALS						
7440-36-0	Antimony, dissolved	(3)	3500	<.1 ug/l	G or C	1/5 YR
7440-38-2	Arsenic, dissolved	(3)	1400	<.01 ug/l	G or C	1/5 YR
7440-39-3	Barium, dissolved	(3)	500000	.031 ug/l	G or C	1/5 YR
7440-43-9	Cadmium, dissolved	(3)	9.3	<.0003 ug/l	G or C	1/5 YR
16065-83-1	Chromium III, dissolved ⁽⁸⁾	(3)	1600	<.01 ug/l	G or C	1/5 YR
18540-29-9	Chromium VI, dissolved ⁽⁸⁾	(3)	66	<.01 ug/l	G or C	1/5 YR
7440-50-8	Copper, dissolved	(3)	35	<.01 ug/l	G or C	1/5 YR
7439-89-6	Iron, dissolved	(3)	75000	.038 ug/l	G or C	1/5 YR
7439-92-1	Lead, dissolved	(3)	260	<.01 ug/l	G or C	1/5 YR
7439-96-5	Manganese, dissolved	(3)	12000	.026 ug/l	G or C	1/5 YR
7439-97-6	Mercury, dissolved	(3)	5.8	<.0002 ug/l	G or C	1/5 YR
7440-02-0	Nickel, dissolved	(3)	500	<.01 ug/l	G or C	1/5 YR
7782-49-2	Selenium, dissolved	(3)	83	<.003 ug/l	G or C	1/5 YR
7440-22-4	Silver, dissolved	(3)	6.1	<.0005 ug/l	G or C	1/5 YR
7440-28-0	Thallium, dissolved	(4)	(5)	<.0002 ug/l	G or C	1/5 YR
7440-66-6	Zinc, dissolved	(3)	320	.045 ug/l	G or C	1/5 YR
PESTICIDES/PCB'S						
309-00-2	Aldrin	608	0.05	<.02 ug/l	G or SC	1/5 YR
57-74-9	Chlordane	608	0.2	<.2 ug/l	G or SC	1/5 YR
2921-88-2	Chlorpyrifos (synonym = Dursban)	622	(5)	<.25 ug/l	G or SC	1/5 YR
72-54-8	DDD	608	0.1	<.1	G or SC	1/5 YR
72-55-9	DDE	608	0.1	<.04	G or SC	1/5 YR
50-29-3	DDT	608	0.1	<.01	G or SC	1/5 YR
8065-48-3	Demeton	(4)	(5)	<.50	G or SC	1/5 YR
60-57-1	Dieldrin	608	0.1	<.02	G or SC	1/5 YR
959-98-8	Alpha-Endosulfan	608	0.1	<.1	G or SC	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
33213-65-9	Beta-Endosulfan	608	0.1	<.04	G or SC	1/5 YR
1031-07-8	Endosulfan Sulfate	608	0.1	<.01	G or SC	1/5 YR
72-20-8	Endrin	608	0.1	<.1	G or SC	1/5 YR
7421-93-4	Endrin Aldehyde	(4)	(5)	<.2	G or SC	1/5 YR
86-50-0	Guthion	622	(5)	<.50	G or SC	1/5 YR
76-44-8	Heptachlor	608	0.05	<.05	G or SC	1/5 YR
1024-57-3	Heptachlor Epoxide	(4)	(5)	<.2	G or SC	1/5 YR
319-84-6	Hexachlorocyclohexane Alpha-BHC	608	(5)	<.02	G or SC	1/5 YR
319-85-7	Hexachlorocyclohexane Beta-BHC	608	(5)	<.05	G or SC	1/5 YR
58-89-9	Hexachlorocyclohexane Gamma-BHC or Lindane	608	(5)	<.02	G or SC	1/5 YR
143-50-0	Kepone	(9)	(5)	<20	G or SC	1/5 YR
121-75-5	Malathion	(4)	(5)	<.18	G or SC	1/5 YR
72-43-5	Methoxychlor	(4)	(5)	<2	G or SC	1/5 YR
2385-85-5	Mirex	(4)	(5)	<.1	G or SC	1/5 YR
56-38-2	Parathion	(4)	(5)	<.11	G or SC	1/5 YR
11096-82-5	PCB 1260	608	1.0	<1	G or SC	1/5 YR
11097-69-1	PCB 1254	608	1.0	<1	G or SC	1/5 YR
12672-29-6	PCB 1248	608	1.0	<1	G or SC	1/5 YR
53469-21-9	PCB 1242	608	1.0	<1	G or SC	1/5 YR
11141-16-5	PCB 1232	608	1.0	<1	G or SC	1/5 YR
11104-28-2	PCB 1221	608	1.0	<1	G or SC	1/5 YR
12674-11-2	PCB 1016	608	1.0	<1	G or SC	1/5 YR
1336-36-3	PCB Total	608	7.0	<7	G or SC	1/5 YR
8001-35-2	Toxaphene	608	5.0	<3	G or SC	1/5 YR
BASE NEUTRAL EXTRACTABLES						
83-32-9	Acenaphthene	625	10.0	<10	G or SC	1/5 YR
120-12-7	Anthracene	625	10.0	<10	G or SC	1/5 YR
92-87-5	Benzidine	(4)	(5)	<50	G or SC	1/5 YR
56-55-3	Benzo (a) anthracene	625	10.0	<10	G or SC	1/5 YR

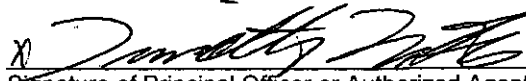
CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
205-99-2	Benzo (b) fluoranthene	625	10.0	< 10	G or SC	1/5 YR
207-08-9	Benzo (k) fluoranthene	625	10.0	< 10	G or SC	1/5 YR
50-32-8	Benzo (a) pyrene	625	10.0	< 10	G or SC	1/5 YR
111-44-4	Bis 2-Chloroethyl Ether	(4)	(5)	< 10	G or SC	1/5 YR
39638-32-9	Bis 2-Chloroisopropyl Ether	(4)	(5)	< 10	G or SC	1/5 YR
85-68-7	Butyl benzyl phthalate	625	10.0	< 10	G or SC	1/5 YR
91-58-7	2-Chloronaphthalene	(4)	(5)	< 10	G or SC	1/5 YR
218-01-9	Chrysene	625	10.0	< 10	G or SC	1/5 YR
53-70-3	Dibenz(a,h)anthracene	625	20.0	< 10	G or SC	1/5 YR
84-74-2	Dibutyl phthalate (synonym = Di-n-Butyl Phthalate)	625	10.0	< 10	G or SC	1/5 YR
95-50-1	1,2-Dichlorobenzene	624	10.0	< 10	G or SC	1/5 YR
541-73-1	1,3-Dichlorobenzene	624	10.0	< 10	G or SC	1/5 YR
106-46-7	1,4-Dichlorobenzene	624	10.0	< 10	G or SC	1/5 YR
91-94-1	3,3-Dichlorobenzidine	(4)	(5)	< 10	G or SC	1/5 YR
84-66-2	Diethyl phthalate	625	10.0	< 10	G or SC	1/5 YR
117-81-7	Di-2-Ethylhexyl Phthalate	625	10.0	< 10	G or SC	1/5 YR
131-11-3	Dimethyl phthalate	(4)	(5)	< 10	G or SC	1/5 YR
121-14-2	2,4-Dinitrotoluene	625	10.0	< 10	G or SC	1/5 YR
122-66-7	1,2-Diphenylhydrazine	(4)	(5)	< 10	G or SC	1/5 YR
206-44-0	Fluoranthene	625	10.0	< 10	G or SC	1/5 YR
86-73-7	Fluorene	625	10.0	< 10	G or SC	1/5 YR
118-74-1	Hexachlorobenzene	(4)	(5)	< 10	G or SC	1/5 YR
87-68-3	Hexachlorobutadiene	(4)	(5)	< 10	G or SC	1/5 YR
77-47-4	Hexachlorocyclopentadiene	(4)	(5)	< 10	G or SC	1/5 YR
67-72-1	Hexachloroethane	(4)	(5)	< 10	G or SC	1/5 YR
193-39-5	Indeno(1,2,3-cd)pyrene	625	20.0	< 10	G or SC	1/5 YR
78-59-1	Isophorone	625	10.0	< 10	G or SC	1/5 YR
98-95-3	Nitrobenzene	625	10.0	< 10	G or SC	1/5 YR
62-75-9	N-Nitrosodimethylamine	(4)	(5)	< 10	G or SC	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
621-64-7	N-Nitrosodi-n-propylamine	(4)	(5)	<10	G or SC	1/5 YR
86-30-6	N-Nitrosodiphenylamine	(4)	(5)	<10	G or SC	1/5 YR
129-00-0	Pyrene	625	10.0	<10	G or SC	1/5 YR
120-82-1	1,2,4-Trichlorobenzene	625	10.0	<10	G or SC	1/5 YR
VOLATILES						
107-02-8	Acrolein	(4)	(5)	<10	G	1/5 YR
107-13-1	Acrylonitrile	(4)	(5)	<10	G	1/5 YR
71-43-2	Benzene	624	10.0	<10	G	1/5 YR
75-25-2	Bromoform	624	10.0	<10	G	1/5 YR
56-23-5	Carbon Tetrachloride	624	10.0	<10	G	1/5 YR
108-90-7	Chlorobenzene (synonym = monochlorobenzene)	624	50.0	<10	G	1/5 YR
124-48-1	Chlorodibromomethane	624	10.0	<10	G	1/5 YR
67-66-3	Chloroform	624	10.0	<10	G	1/5 YR
75-09-2	Dichloromethane (synonym = methylene chloride)	624	20.0	<10	G	1/5 YR
75-27-4	Dichlorobromomethane	624	10.0	<10	G	1/5 YR
107-06-2	1,2-Dichloroethane	624	10.0	<10	G	1/5 YR
75-35-4	1,1-Dichloroethylene	624	10.0	<10	G	1/5 YR
156-60-5	1,2-trans-dichloroethylene	(4)	(5)	<10	G	1/5 YR
78-87-5	1,2-Dichloropropane	(4)	(5)	<10	G	1/5 YR
542-75-6	1,3-Dichloropropene	(4)	(5)	<10	G	1/5 YR
100-41-4	Ethylbenzene	624	10.0	<10	G	1/5 YR
74-83-9	Methyl Bromide	(4)	(5)	<10	G	1/5 YR
79-34-5	1,1,2,2-Tetrachloroethane	(4)	(5)	<10	G	1/5 YR
127-18-4	Tetrachloroethylene	624	10.0	<10	G	1/5 YR
10-88-3	Toluene	624	10.0	<10	G	1/5 YR
79-00-5	1,1,2-Trichloroethane	(4)	(5)	<10	G	1/5 YR
79-01-6	Trichloroethylene	624	10.0	<10	G	1/5 YR
75-01-4	Vinyl Chloride	624	10.0	<10	G	1/5 YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
RADIONUCLIDES						
	Strontium 90 (pCi/L)	(4)	(5)	ND	G or C	1/5 YR
	Tritium (pCi/L)	(4)	(5)	ND	G or C	1/5 YR
	Beta Particle & Photon Activity (mrem/yr)	(4)	(5)	7.97 us/l	G or C	1/5 YR
	Gross Alpha Particle Activity (pCi/L)	(4)	(5)	ND	G or C	1/5 YR
ACID EXTRACTABLES⁽⁶⁾						
95-57-8	2-Chlorophenol	625	10.0	<10 ug/l	G or SC	1/5 YR
120-83-2	2,4 Dichlorophenol	625	10.0	<10	G or SC	1/5 YR
105-67-9	2,4 Dimethylphenol	625	10.0	<10	G or SC	1/5 YR
51-28-5	2,4-Dinitrophenol	(4)	(5)	<50	G or SC	1/5 YR
534-52-1	2-Methyl-4,6-Dinitrophenol	(4)	(5)	<50	G or SC	1/5 YR
87-86-5	Pentachlorophenol	625	50.0	<20	G or SC	1/5 YR
108-95-2	Phenol	625	10.0	<10	G or SC	1/5 YR
88-06-2	2,4,6-Trichlorophenol	625	10.0	<10 ug/l	G or SC	1/5 YR
MISCELLANEOUS						
	Ammonia as NH3-N	350.1	200	.12	C	1/5 YR
16887-00-6	Chlorides	(4)	(5)	70 mg/l	C	1/5 YR
7782-50-5	Chlorine, Total Residual	(4)	100	ND	G	1/5 YR
57-12-5	Cyanide, Total	(4)	10.0	<.01 mg/l	G	1/5 YR
94-75-7	2,4 Dichlorophenoxy acetic acid (synonym = 2,4-D)	(4)	(5)	<.25 ug/l	G or SC	1/5 YR
N/A	E. coli / Enterococcus (N/CML)	(4)	(5)	0	G	1/5 YR
N/A	Foaming Agents (as MBAS)	(4)	(5)	<.10	G	1/5 YR
7783-06-4	Hydrogen Sulfide	(4)	(5)	<1 mg/l	G or SC	1/5 YR
14797-55-8	Nitrate as N (mg/L)	(4)	(5)	.4 mg/l	C	1/5 YR
N/A	Sulfate (mg/L)	(4)	(5)	71.9 mg/l	C	1/5 YR
N/A	Total Dissolved Solids (mg/L)	(4)	(5)	396 mg/l	C	1/5 YR
60-10-5	Tributyltin ⁽⁷⁾	NBSR 85-3295	(5)	ND	G or C	1/5 YR
93-72-1	2-(2,4,5-Trichlorophenoxy) propionic acid (synonym = Silvex)	(4)	(5)	<.34 ug/l	G or SC	1/5 YR

Name of Principal Exec. Officer or Authorized Agent/Title

Tim Newton / ESU Director



Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

FOOTNOTES:

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = A 24-hour (PW - Revise as required to require same composite duration as BOD₅) composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

SC = Special Composite = samples for base/neutral/acid compounds, PCBs, and pesticides must be collected as 4 individual grab samples taken proportional to flow at 6-hour intervals over the course of one day. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period. Grab samples must be analyzed separately and the concentrations averaged. Alternately, grab samples may be collected in the field and composited in the laboratory if the compositing procedure produces results equivalent to results produced by arithmetic averaging of the results of analysis of individual grab samples.

- (3) A specific analytical method is not specified; however a target value for each metal has been established. An appropriate method to meet the target value shall be selected from the following list of EPA methods (or any approved method presented in 40 CFR Part 136). If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

<u>Metal</u>	<u>Analytical Method</u>
Antimony	1638; 1639
Arsenic	206.5; 1632
Chromium ⁽⁹⁾	1639
Cadmium	1637; 1638; 1639; 1640

Chromium VI	218.6; 1639
Copper	1638; 1640
Lead	1637; 1638; 1640
Mercury	245.7; 1631
Nickel	1638; 1639; 1640
Selenium	1638; 1639
Silver	1638
Zinc	1638; 1639

- (4) Any approved method presented in 40 CFR Part 136.
- (5) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.
- (6) Testing for phenol requires continuous extraction.
- (7) Analytical Methods: NBSR 85-3295 or DEQ's approved analysis for Tributyltin may also be used [See A Manual for the Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996].
- (8) Both Chromium III and Chromium VI may be measured by the total chromium analysis. If the result of the total chromium analysis is less than or equal to the lesser of the Chromium III or Chromium VI method QL, the results for both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (9) The lab may use SW846 Method 8270D provided the lab has an Initial Demonstration of Capability, has passed a PT for Kepone, and meets the acceptance criteria for Kepone as given in Method 8270D

Name of Principal Exec. Officer or Authorized Agent/Title *ESU Director*

[Signature] *2/12/09*
Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

FOOTNOTES:

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

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- (2) Sample Type

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SC = Special Composite = samples for base/neutral/acid compounds, PCBs, and pesticides must be collected as 4 individual grab samples taken proportional to flow at 6-hour intervals over the course of one day. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period. Grab samples must be analyzed separately and the concentrations averaged. Alternately, grab samples may be collected in the field and composited in the laboratory if the compositing procedure produces results equivalent to results produced by arithmetic averaging of the results of analysis of individual grab samples.

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<u>Metal</u>	<u>Analytical Method</u>
Antimony	1638; 1639
Arsenic	206.5; 1632
Chromium ⁽⁹⁾	1639
Cadmium	1637; 1638; 1639; 1640



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Certificate of Analysis

Final Report

Laboratory Order ID 08090002

Client Name: James River Correctional Center

Date Received:

September 02, 2008

Date Issued:

October 28, 2008

State Farm, VA 23160

Submitted To: Randy Wilson

Project Number: NA

Client Site I.D.: VCCW

Purchase Order: NA

Sample I.D.: VCCW Effluent

Laboratory Sample I.D.: 08090002-001

Date/Time Sampled: 09/02/08 07:10

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
Chromium, Dissolved Hexavalent	SM18/3500-Cr D	< 0.005 mg/L	0.005	09/02/08 11:45	NBA
Chromium, Dissolved Trivalent	Calc.	< 0.01 mg/L	0.010	09/09/08 17:59	CGT
Photon Activity	EPA901.1	See Attached	—		
Antimony, Dissolved	EPA200.7/R4.4	< 0.1 mg/L	0.100	09/09/08 17:59	CGT
Arsenic, Dissolved	EPA200.7/R4.4	< 0.01 mg/L	0.010	09/09/08 17:59	CGT
Barium, Dissolved	EPA200.7/R4.4	0.031 mg/L	0.010	09/09/08 17:59	CGT
Cadmium, Dissolved	EPA200.9/R2.2	< 0.0003 mg/L	0.0003	09/10/08 15:03	DMH
Chromium, Dissolved	EPA200.7/R4.4	< 0.01 mg/L	0.010	09/09/08 17:59	CGT
Copper, Dissolved	EPA200.7/R4.4	< 0.01 mg/L	0.010	09/09/08 17:59	CGT
Iron, Dissolved	EPA200.7/R4.4	0.038 mg/L	0.010	09/09/08 17:59	CGT
Lead, Dissolved	EPA200.7/R4.4	< 0.01 mg/L	0.010	09/09/08 17:59	CGT
Manganese, Dissolved	EPA200.7/R4.4	0.026 mg/L	0.010	09/09/08 17:59	CGT
Mercury, Dissolved	EPA245.1/R3.0	< 0.0002 mg/L	0.0002	09/10/08 10:11	DMH
Nickel, Dissolved	EPA200.7/R4.4	< 0.01 mg/L	0.010	09/09/08 17:59	CGT
Selenium, Dissolved	EPA200.9/R2.2	< 0.003 mg/L	0.003	09/12/08 0:31	DMH
Silver, Dissolved	EPA200.9/R2.2	< 0.0005 mg/L	0.0005	09/15/08 15:53	DMH
Thallium, Dissolved	EPA200.9/R2.2	< 0.002 mg/L	0.002	09/16/08 3:06	DMH
Zinc, Dissolved	EPA200.7/R4.4	0.045 mg/L	0.010	09/09/08 17:59	CGT
Acrylonitrile	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Acrolein	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Chloromethane	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Vinyl chloride	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Bromomethane	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
1,1-Dichloroethylene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Methylene chloride	EPA624	< 20 ug/L	20.0	09/06/08 2:08	DMB
trans-1,2-Dichloroethylene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Chloroform	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Carbon tetrachloride	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Benzene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
1,2-Dichloroethane	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Trichloroethylene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB



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Certificate of Analysis

Final Report

Laboratory Order ID 08090002

Client Name: James River Correctional Center

Date Received:

September 02, 2008

Date Issued:

October 28, 2008

State Farm, VA 23160

Submitted To: Randy Wilson

Project Number: NA

Client Site I.D.: VCCW

Purchase Order: NA

Sample I.D.: VCCW Effluent

Laboratory Sample I.D.: 08090002-001

Date/Time Sampled: 09/02/08 07:10

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
1,2-Dichloropropane	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Bromodichloromethane	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
2-Chloroethyl vinyl ether	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
cis-1,3-Dichloropropene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Toluene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
trans-1,3-Dichloropropene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
1,1,2-Trichloroethane	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Tetrachloroethylene (PCE)	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Dibromochloromethane	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Chlorobenzene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Ethylbenzene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Bromoform	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
1,1,2,2-Tetrachloroethane	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
1,3-Dichlorobenzene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
1,4-Dichlorobenzene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
1,2-Dichlorobenzene	EPA624	< 10 ug/L	10.0	09/06/08 2:08	DMB
Azobenzene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
2,4-D	SW8151A	< 0.25 ug/L	0.250	09/10/08 15:20	CLA
2,4,5-TP (Silvex)	SW8151A	< 0.34 ug/L	0.340	09/10/08 15:20	CLA
Kepone	SW8270D	< 20 ug/L	20.0	09/04/08 18:12	JHV
Mirex	SW8081A	< 0.1 ug/L	0.100	09/11/08 21:20	CLA
PCB as Aroclor 1016	EPA608	< 1 ug/L	1.0	09/10/08 17:25	CLA
PCB as Aroclor 1221	EPA608	< 1 ug/L	1.0	09/10/08 17:25	CLA
PCB as Aroclor 1232	EPA608	< 1 ug/L	1.0	09/10/08 17:25	CLA
PCB as Aroclor 1242	EPA608	< 1 ug/L	1.0	09/10/08 17:25	CLA
PCB as Aroclor 1248	EPA608	< 1 ug/L	1.0	09/10/08 17:25	CLA
PCB as Aroclor 1254	EPA608	< 1 ug/L	1.0	09/10/08 17:25	CLA
PCB as Aroclor 1260	EPA608	< 1 ug/L	1.0	09/10/08 17:25	CLA
4,4-DDD	EPA608	< 0.1 ug/L	0.100	09/11/08 21:20	CLA
4,4-DDE	EPA608	< 0.04 ug/L	0.040	09/11/08 21:20	CLA
4,4-DDT	EPA608	< 0.01 ug/L	0.010	09/11/08 21:20	CLA



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Certificate of Analysis

Final Report

Laboratory Order ID 08090002

Client Name: James River Correctional Center

Date Received:

September 02, 2008

Date Issued:

October 28, 2008

State Farm, VA 23160

Submitted To: Randy Wilson

Project Number: NA

Client Site I.D.: VCCW

Purchase Order: NA

Sample I.D.: VCCW Effluent

Laboratory Sample I.D.: 08090002-001

Date/Time Sampled: 09/02/08 07:10

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
Aldrin	EPA608	< 0.02 ug/L	0.020	09/11/08 21:20	CLA
alpha-BHC	EPA608	< 0.02 ug/L	0.020	09/11/08 21:20	CLA
beta-BHC	EPA608	< 0.05 ug/L	0.050	09/11/08 21:20	CLA
Chlordane	EPA608	< 0.2 ug/L	0.20	09/11/08 21:20	CLA
delta-BHC	EPA608	< 0.05 ug/L	0.050	09/11/08 21:20	CLA
Dieldrin	EPA608	< 0.02 ug/L	0.020	09/11/08 21:20	CLA
Endosulfan I	EPA608	< 0.1 ug/L	0.100	09/11/08 21:20	CLA
Endosulfan II	EPA608	< 0.04 ug/L	0.040	09/11/08 21:20	CLA
Endosulfan sulfate	EPA608	< 0.01 ug/L	0.010	09/11/08 21:20	CLA
Endrin	EPA608	< 0.1 ug/L	0.100	09/11/08 21:20	CLA
Endrin aldehyde	EPA608	< 0.2 ug/L	0.200	09/11/08 21:20	CLA
gamma-BHC (Lindane)	EPA608	< 0.02 ug/L	0.020	09/11/08 21:20	CLA
Heptachlor	EPA608	< 0.05 ug/L	0.050	09/11/08 21:20	CLA
Heptachlor epoxide	EPA608	< 0.2 ug/L	0.200	09/11/08 21:20	CLA
Methoxychlor	EPA608	< 2 ug/L	2.00	09/11/08 21:20	CLA
Toxaphene	EPA608	< 3 ug/L	3.00	09/11/08 21:20	CLA
2-Chlorophenol	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
2,4-Dichlorophenol	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
2,4-Dimethylphenol	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
4,6-Dinitro-2-methylphenol	EPA625	< 50 ug/L	50.0	09/04/08 18:12	JHV
2,4-Dinitrophenol	EPA625	< 50 ug/L	50.0	09/04/08 18:12	JHV
Pentachlorophenol	EPA625	< 20 ug/L	20.0	09/04/08 18:12	JHV
Phenol	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
2,4,6-Trichlorophenol	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Acenaphthene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Anthracene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Benzo (a) anthracene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Benzo (b) fluoranthene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Benzo (k) fluoranthene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Benzo (a) pyrene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Butyl benzyl phthalate	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
bis (2-Chloroethoxy) methane	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV



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Certificate of Analysis

Final Report

Laboratory Order ID 08090002

Client Name: James River Correctional Center

Date Received:

September 02, 2008

Date Issued:

October 28, 2008

State Farm, VA 23160

Submitted To: Randy Wilson

Project Number: NA

Client Site I.D.: VCCW

Purchase Order: NA

Sample I.D.: VCCW Effluent

Laboratory Sample I.D.: 08090002-001

Date/Time Sampled: 09/02/08 07:10

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
bis (2-Chloroethyl) ether	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
bis (2-Chloroisopropyl) ether	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
4-Chlorophenyl phenyl ether	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Chrysene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Dibenz (a,h) anthracene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Di-n-butyl phthalate	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Diethyl phthalate	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Dimethyl phthalate	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
2,4-Dinitrotoluene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
bis (2-Ethylhexyl) phthalate	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Fluoranthene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Fluorene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Hexachlorobenzene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Hexachlorobutadiene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Hexachlorocyclopentadiene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Hexachloroethane	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Indeno (1,2,3-cd) pyrene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Isophorone	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Naphthalene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Nitrobenzene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
N-Nitrosodimethylamine	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
N-Nitrosodiphenylamine	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
N-Nitrosodi-N-propylamine	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Phenanthrene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Pyrene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
1,2,4-Trichlorobenzene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Benzidine	EPA625	< 50 ug/L	50.0	09/04/08 18:12	JHV
3,3-Dichlorobenzidine	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
2-Chloronaphthalene	EPA625	< 10 ug/L	10.0	09/04/08 18:12	JHV
Ammonia	EPA350.1/R2.0	< 0.1 mg/L	0.10	09/08/08 12:00	RPF
Chloride	EPA300.0/R2.1	70.0 mg/L	1.0	09/15/08 20:54	RPF



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Certificate of Analysis

Final Report

Laboratory Order ID 08090002

Client Name: James River Correctional Center

Date Received:

September 02, 2008

Date Issued:

October 28, 2008

State Farm, VA 23160

Submitted To: Randy Wilson

Project Number: NA

Client Site I.D.: VCCW

Purchase Order: NA

Sample I.D.: VCCW Effluent

Laboratory Sample I.D.: 08090002-001

Date/Time Sampled: 09/02/08 07:10

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
Cyanide	Kelada-01	< 0.01 mg/L	0.01	09/05/08 12:39	WBP
Hydrogen Sulfide (calc)	SM18/4500-S2 H	< 1 mg/L	1.0	09/08/08 15:45	MBC
Nitrate	Calc.	0.4 mg/L	0.1	09/03/08 9:40	WBP
Nitrate+Nitrite	SM18/4500-NO3 F	0.54 mg/L	0.10	09/05/08 10:26	RPF
Nitrite	SM18/4500-NO2 B	0.16 mg/L	0.05	09/03/08 9:40	WBP
pH	SM18/4500-H B	7.6 SU	--	09/04/08 9:34	WBP
The pH measurement was performed outside of the 15 minute holding time.					
Sulfate	EPA300.0/R2.1	71.9 mg/L	1.0	09/15/08 20:54	RPF
Sulfide	SM18/4500-S2 E	< 1 mg/L	1.0	09/08/08 15:45	MBC
TDS	SM18/2540C	371 mg/L	10	09/03/08 16:52	MBC
Temperature	EPA170.1	12.6 °C	--	09/04/08 9:34	WBP
Temperature result reflects the temperature at the time the pH was recorded.					
Gross Alpha Activity	EPA900	See Attached	5.0		
Gross Beta Activity	EPA900	See Attached	5.0		
Demeton-o	EPA622	See Attached	0.500		
Demeton-s	EPA622	See Attached	0.500		
Chlorpyrifos	EPA622	See Attached	5.00		
Azinphos, Methyl	EPA622	See Attached	5.00		
Malathion	EPA622	See Attached	5.00		
Strontium-90	EPA905	See Attached	2.0		
MBAS	SM18/5540C	See Attached	0.10		
Tributyltin	85-3295	See Attached	0.05		
Tritium	EPA906	See Attached	700		

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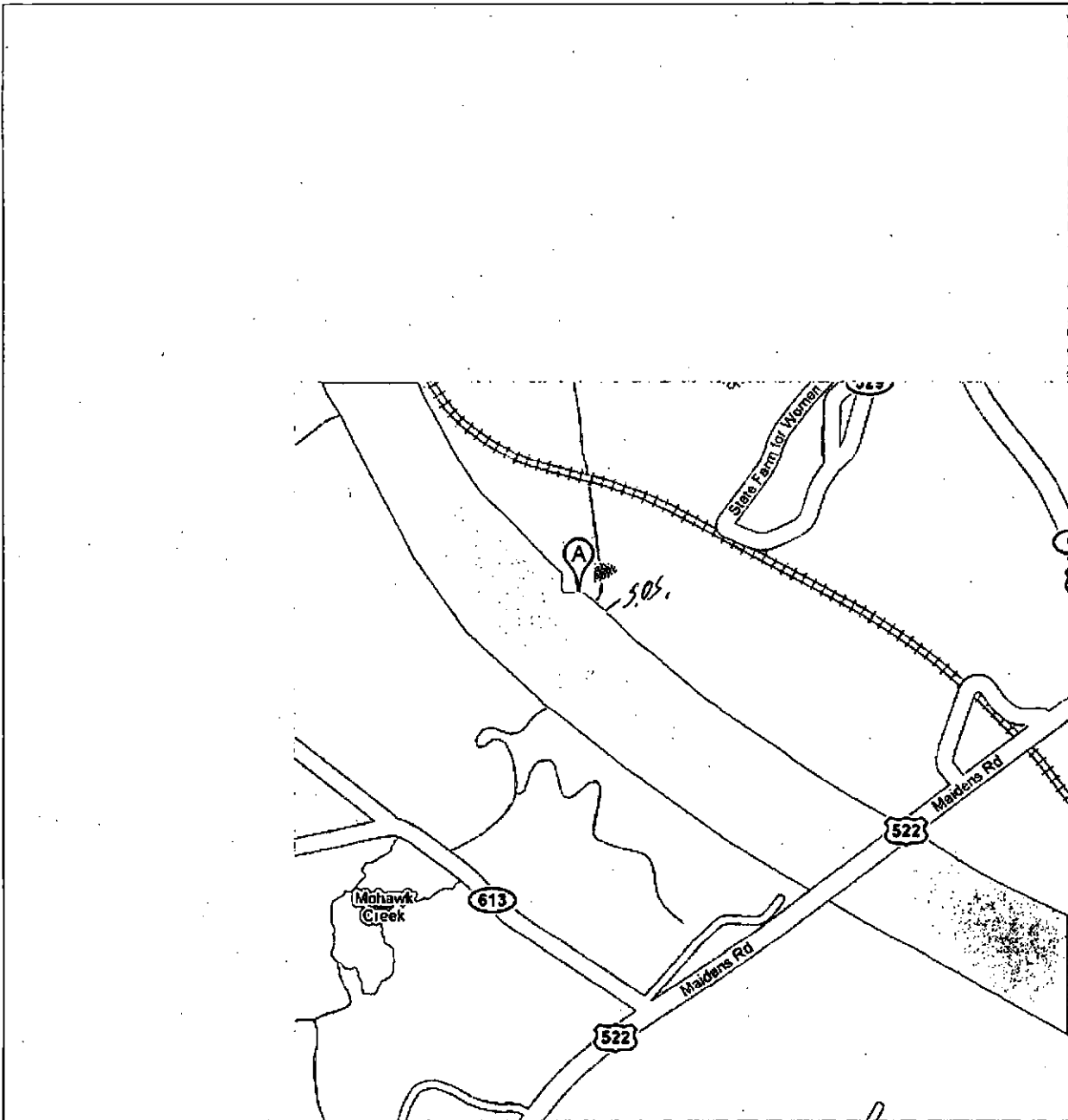
Laboratory Manager



Address **+37° 40' 14.40", -77° 53' 47.40"**



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